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The Managing Editor would be glad to receive from the Readers of the Journal any suggestions that in their opinion would make the Journal more useful. We have already improved considerably the get-up and type of the Journal during the regime of Mr. Karwal. The suggestions that I now request the readers to make should be regarding the subject-matter of the Journal.

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Part I

THE THEORY OF WAGES IN THE LIGHT OF SOCIAL INSURANCE AND PUBLIC FINANCE*

BY

BENOY KUMAR SARKAR.

Truchy and von Zwiedineck on Wage-Theories.

The theory of marginal productivity of labour is, according to Henri Truchy, but a new formulation of an already known truth and adds nothing to science except possibly some amount of precision or "pretension" to precision. He believes that in any case this theory has failed like the previous theories (cost of production of labour, wage-fund, supply and demand of labour) to explain the law of wages. And he concludes that the attempt of economists to find *une formule exacte et rigoureuse* (an exact and rigorous formula) is *décevante et vaine* (deceptive and fruitless).¹ But all the same, he does not stop at this dangerously "defeatist" position in economic science. A scientific theory of wages is expected by him after series of studies have been undertaken into the variations in wages considered in their bearings on the entire *ensemble* or complex of economic conditions.

In this position, "defeatistic" in the main as it is, we encounter on a different path Otto von Zwiedineck. In regard to the "postulates" and deductions of diverse wage-theories von Zwiedineck² observes as follows: "It is questionable if on the

* A paper for the Nineteenth Indian Economic Conference, Dacca, January 1936.

¹ *Cours d'Economie Politique* Vol. II, (Paris 1934), pp. 183—185.

² "Lohntheorie and Lohnpolitik" in the *Handwoerterbuch der Staatswissenschaften* (Jena, 1925) Vol. VI, pp. 403-404.

strength of these it is possible to formulate a quantitatively definite wage-rate as the rational rate. Perhaps we can merely comprehend a most extensive range of wages. Or, maybe, it is simply permissible to grasp the rational wage-rate in an objective manner." He concludes that these *Lohngesetze* (laws of wages) furnish us with "no norms or rules according to which for a given state of things the wage-rates could inevitably be formulated from a given set of data."

All the same, von Zwiedineck finds it possible to explain certain forms of *Lohngestaltung* (wage-formation) according to each theory. Besides, the origin of each theory is explained by him in reference to the particular "complex of historical facts" in the midst of which it arose.

A position like the one of Truchy or of von Zwiedineck is eminently acceptable to-day, used as the scientific world is to "institutional" economics and statistical analysis.

The New Institutional Complex.

It is in the *milieu* of a huge institutional complex that the "economic man" of to-day,—the employer no less than the employee,—has to function. The least that the economic theorist is justified in postulating in regard to the theatre of economic activities is the "freedom of enterprise." Economic freedom is the farthest removed from the realities of economic life, especially such as has developed in Europe, America and Japan under the conditions of the "second industrial revolution" and "neo-capitalism." In the first place, the "social expenses" of national budget which comprise the "benefits" of social insurance as well as poor relief constitute the most fundamental background of institutions in the midst of which the earnings of the economic man have to make their appearance. No theory of wages can be realistic and adequate enough which is not oriented to the considerations of public finance such as the state-directed economic or societal "planning" and campaign against poverty injects into the economic world at every item of its functioning. The negation of *laissez faire* has grown into the greatest of all realities in the internal economy of nations.

In the second place, even without or rather outside of state intervention there are the innumerable "frictions" to economic competition engendered by the doctrines as well as facts of *solidarisme*. Both employees and employers—well organized into unions on each side as they are,—have got used to the regime of give-and-take, mutuality, "interdependence." The employer is no more a free-to-choose individual than the employee. The

earnings of labour,—wages, salaries, bonuses, and what not,—require therefore to be interpreted in terms of these new conditions of the labour world in which, in the last analysis, not so much individualist competition as reciprocal co-operation virtually rules.

In these two sets of social forces and circumstances we are not called upon to see some of the ideals, pious wishes and dreams of utopists. These are already the well-established data of institutional economics.

**“ Supplementary Wages ” as involved in Social Insurance
vis-a-vis “ Fair Wages.”**

Social insurance cannot in *theory* be described as a system of doles or charities because it is essentially insurance and, as such, is based on premium paid by the insured.

The “dole-ful” character is apparent, however, in the facts, (1) that a part of the premium is paid by the employer, and (2) that another part of the premium is paid, in several branches of social insurance and in many countries, by the state. In regard to the first point, the employer’s contribution, it may perhaps be described as part-payment of “supplementary wage” and cannot therefore be described as a charity or dole even in liberal, *laissez faire* or orthodox economic thinking.

But the contribution by the state is likely to be treated as pure charity or dole, and the wage-earner or salaried employee treated in the same manner as a “public charge,” nay, as a pauper depending on Government benevolence. It is evident that state dole is rendered possible simply because of allocations from the national finances which naturally come from the citizens’ taxes. The wage-earner and salaried employee become thereby the charity-boys of the nation. The element of dole involved in this item cannot be ignored either in classical economics or in socialist economics. Naturally, therefore, the state contribution is condemned on all sides as a bounty or subvention to the employers or capitalists who are thereby enabled to curtail their pay-bill. The economic system which normally requires a state-subsidy for employers cannot be regarded as a legitimate one. The perpetual protection of capitalists by the state is curiously enough the most outstanding fact of modern economy in so far as and to the extent that social insurance is an established institution.

It cannot be denied, therefore, that the charge against social insurance being a system of doles is in part true. Only, it involves a dole not only to the workingmen and employees but to

the employers and capitalists as well. We cannot fight shy of admitting that both the classes in the modern economy—in the system of the second industrial revolution—are “public charges,” *pupilles de la nation*, so to say, maintained to some appreciable extent at their level of efficiency out of the taxes paid by the citizens. From a system of social assurance, based as it is in part on contributions by the state, to the system of “Gosplan” (state-plan), “economic planning,” etc. directed by the state the transition is slow but steady.

The institutions of social insurance have therefore habituated the people, the employers no less than the employees of all denominations, to the factual experience of depending, in the daily activities of economic life, on the direct charities, contributions, gifts, etc. from the entire community. The “interdependence” of the diverse classes, the *solidarisme* of the French sociologists like Durkheim, Bouglé and Gide, the “mutual aid” of Kropotkin, the “social harmony” of Hobhouse have been the realities of contemporary societal organization. It is perhaps from the solidaristic viewpoint that the stigma of pauperism embodied in the dole-elements of social insurance is counteracted in the labour and capitalist psychology of to-day. This is apparent also from the manner in which Truchy analyses the relations between “social assurance” and “assistance” and distinguishes the latter from traditional charity.

Incidentally, it is interesting to observe that Truchy, who is President of the *Société d'Economie Politique de Paris*, the citadel of *laissez faire*, accepts not only the principles of social insurance in their entirety but also admits that *l'intervention de l'Etat est donc dans son principe légitime*. For French economic thought this implies a revolution of first-rate importance. In Lasbax's social philosophy, again, it is taken for granted that *la puissance supérieure de l'Etat* (the higher authority of the state) ought to interfere in the plan of the community in order that “higher justice” may reign,—a justice which is considered to be identical with the “laws of life and morality.”³

In those branches or items of social insurance in which the benefits have if at all hardly any liaison with the premium paid by the insured and the employer its character as insurance entirely disappears. The “dole-ful” character of those branches or

³ Truchy : *Cours*, Vol. II, (Paris 1934), pp. 475-476. Lasbax : *La Cité Humaine*, Vol. II, (Paris 1927), p. 115. Bouglé : *Socialismes Français* (Paris, 1933), pp. 103—110.

items is therefore unquestioned. All the remarks that have been made with regard to state contribution in social insurance proper apply here in the most intense manner.

It is to be remembered⁴ that in unemployment "assistance" as well as in "poor relief," as organized in the British Isles, the question of risk from the standpoint of insurance does not arise. The problem of approximating the benefit, grant, allowance or relief to the risk is out of the question. The financial responsibility is borne by those persons who are the farthest removed from the likelihood, possibility, danger, or risk of unemployment, namely, the capitalists, employers and higher middle classes. The cost of unemployment relief (and semi-insurance?) in these two instances is met by the tax-payer. It is at the expense of the comparatively richer classes that the unemployed are enabled by the state to carry on.

In regard to the unemployment insurance proper, also, it is not always possible to detect any logical connection between the benefit and the risk. No consideration has been paid to the question as to whether the percentages of unemployment are high or low in regard to those classes for whom the insurance has been declared to be compulsory. The rates of contribution as well as benefit have been fixed in an arbitrary although uniform manner without reference to the branches of business, rates of wages or age-groups. Only, the women and the juveniles have been accorded the right to lower contribution as well as lower benefits. On the other hand, children's allowances have been admitted although the parents have not been burdened with higher contributions. Altogether, the more "risky" occupations and age-groups have been "protected" at the cost of the others, *i.e.*, the more favourably situated.

The general principle for all insurance business runs to the effect that the greater the risk, the higher is to be the premium. But in all the three branches of unemployment insurance or semi-insurance and relief in Great Britain the exactly opposite principle may be said to have been adopted, namely, those persons have to pay the most who have the least risk to undergo.

⁴ See the interpretation and criticism of the British Act of 1934 in regard to unemployment insurance in Hayer's article in the *Zeitschrift fuer die gesamte Versicherungswissenschaft* (Berlin), July 1, 1934, pp. 272—274. For Truchy the problem virtually does not arise at all. In his very definition of social assurance it is assumed that (1) the premium does not cover the risk and (2) the benefits are not met exclusively from the contributions, cf. *Cours*, Vol. II (1934), p. 475.

"Societal planning" as embodied in this legislation points but to the expansion of the state's influence in the daily life of the people. The veritable *Gosplan*, i.e., 'state plan' of Soviet Russia has thus become positive law in the British society and for a much larger number of men and women than in the land of its origin.

The experience of all European countries shows, according to an American observer,⁵ that unemployment insurance, old age insurance, health insurance, accident insurance, all put together and all operated to any volume yet undertaken, still leave, especially in any considerable depression, but also to a considerable degree at all times, a large volume of distress not provided for by any of these forms of social insurance. "In addition to these we shall always need, on a considerable scale, a rational, humane, public relief system," says he, "and such a system differs not fundamentally in kind but in degree and scope from these other forms of social insurance."

And finally is to be considered poor relief as a method of controlling poverty. The question of insurance based on premium does not arise in this instance at all. In so far as poor relief continues to be a substantial measure in the social economy of to-day the economist cannot be blind to the reality that the wage-system is fundamentally defective. The wage-rates are failing to-day as they failed in other epochs to enable the gainfully employed to earn enough for themselves and their families not only for the duration of their active periods but also for sickness, old age etc.

Factually considered, between social insurance and poor relief the difference is not considerable in the long run. It is as an aid to the control of poverty that each is to be envisaged. And from the viewpoints of both classical economics and socialist economics, social insurance is like poor relief but a permanent *critique* of the wage-system. Neither in the epoch of neo-capitalism nor in that of orthodox capitalism has it been possible to devise rates of wages such as could be regarded as legitimate, adequate, humane. The problem of "fair wages" continues still to be the most knotty question of economics and economic systems. The institutional economist is not in a position to treat the wage-formations of to-day as being governed by the postulates of the *homo oeconomicus*.

⁵ Folks: "Making Relief Respectable" in the *Annals of the American Academy of Political and Social Science* (Philadelphia), November, 1931, pp. 160-161.

Contemporary Public Finance as Index to the Absence of Fair Wages.

Nothing illustrates more clearly the institutional transformation in the economic *milieu* than the revolution in public finance brought about in modern times. An aspect of this revolution in economic institutions consists in the fact, as emphasized by Tivaroni,⁶ that "the wealth raised by taxation from one social class is not spent by the state for the satisfaction of the requirements of that class but is assigned, wholly or in part, to those of another class." In other words, the institutional economics to-day is normally used to the Finance Acts such as legalize the *trasferimento di ricchezza da una ad altra classe* (transference of wealth from one to another class).

The public finance of pre-Revolutionary France, for instance, was organized on entirely other foundations, as Henri Sée's studies in economic history and Jèze's in finance and public law make it clear.

Down to 1856 the *médecin cantonal* (the district doctor) did not exist as an institution of the state. The hospitals were miserable in Paris and in the *Mofussil* of France unspeakable. Poor relief, whether organized by private or by ecclesiastical charity, was too inadequate. Begging and vagabondism could not be controlled by the Government. During the quinquennium 1786—90 not more than 47 per cent of the men and 27 per cent of the women could sign their names on the marriage register. The absence of facilities for instruction occupied therefore a prominent place in the *cahiers de doléances* (schedules of miseries) issued by the people on the eve of the summoning of the States-General. Altogether, the *ancien régime* spent very little for the *soddisfazione dei bisogni delle classe meno agiate* (satisfaction of the needs of the less favoured classes).⁷

Some idea of the recent growth in the state expenditure on "social services," e.g., in the United Kingdom may be seen in the following table⁸:

Items.	1913-14	1924-25
I. Social Insurance . .	£21,000,000	£68,000,000
II. Education . .	£20,000,000	£49,000,000

⁶ "Influenza della Spesa Pubblica sulla Ripartizione e sulla Distribuzione dei Redditi" (*Giornale degli Economisti e Rivista di Statistica*, Rome June 1935).

⁷ H. Sée: *La France Economique et Sociale au XVIIIe Siècle* (Paris 1925), pp. 172—176, Jèze: *Les Principes Généraux du Droit Administratif* (Paris 1914), p. 394.

⁸ A. Bowley: *Some Economic Consequences of the War* (London 1930), p. 110.

The above describes but a part of the actual financial responsibilities of the British Government.

A more complete picture of the growth of British social insurance expenditure is to be seen below⁹:

1900	..	..	£36,010,000
1910	..	..	£63,157,000
1920	..	..	£306,167,000
1930	..	..	£463,320,000

In the perspective of these expenses let us place the growth in taxes. The direct taxes were as follows (in million £s.):

Year.	Income-tax.	Super-tax.	Death-duties.	Total.
1914	.. 44'5	3	27	74'5
1925	.. 274	63	59	396

The growth of indirect taxes can be seen below:

Items.	1913-14	1924-25
Customs	.. £36,000,000	£100,000,000
Excise ..	.. £40,000,000	£134,000,000

The total taxes, direct and indirect, rose from £150,500,000 in 1913-14 to £630,000,000 in 1924-25.

The evolution of state contributions on sickness, accident, invalidity, employee and miner insurance in Germany can be seen in the following table (in million Marks)¹⁰:

1913	..	..	58,5
1924	..	..	105,6
1925	..	..	182,9
1926	..	..	208,1
1927	..	..	235,6

No attempt should be made to compare the figures from the German side with those from the British. The items included in the two lists are not identical.

⁹ *Barclays Bank Monthly* (London), January 1933.

¹⁰ W. Woytinsky : *Zehn Jahre Neues Deutschland* (Berlin 1929), p. 167.

The growth of the taxes, both direct and indirect, in Germany is exhibited below (in million Marks)¹¹:

Items.	1913-14	1926-27
I. Taxes—		
1. Income (and corporation tax)	1,390,2	2,635,9
2. Property tax	78,8	359,6
3. Succession tax	61,0	34,7
4. Land and House tax ..	435,5	1,009,6
5. Business tax	179,3	644,6
6. House-rent tax .. ..	..	882,6
7. Property transfer tax ..	394,5	576,1
8. Other taxes	875,7	2,303,0
9. Sundries	—9,7	4,5
II. Customs	640,5	940,3
III. Special taxes for reparations .. ..	..	759,7
	<hr/> 4,045,8	<hr/> 11,675,3

At the general exchange of £=20 M. the receipts of the German Reich in taxes and excise rose from £202,230,000 in 1913-14 to £583,700,000 in 1926-27 (as against British £150 m. in 1913-14 and £630 m. in 1924-25). Without pausing to make financial comparisons between the post-war and the pre-war conditions or between England and Germany in regard to taxation per head we notice that the national revenues of these countries are enormous.

Incidentally, in order to get an idea of the situation in British India, we shall place here the figures of direct and indirect taxes at two dates, as follows¹²:

Items.	1932-33	1926-27
1. Taxes on Income..	Rs. 179,740,000	Rs. 156,496,000
2. Customs	Rs. 519,517,000	Rs. 473,811,000
	<hr/> Rs. 699,257,000	<hr/> Rs. 630,307,000
	(£51,000,000	(£46,000,000
	approximately)	approximately)

It is not necessary to compare these figures, modest as they are, with those for Germany and Great Britain.

¹¹ *Deutsche Wirtschaftskunde 1930* (Berlin), p. 306.

¹² *Statistical Abstract for British India 1922—32* (Delhi 1934), pp. 147, 152, 154; *Budget for 1934-35* (Delhi 1934), p. 54.

The total revenues of the Governments in British India at two dates are given below :

		1926-27	1931-32
Central	..	Rs. 1,316,547,000	Rs. 1,216,466,000
Provincial	..	„ 864,316,000	„ 831,837,000
		<hr/>	<hr/>
		Rs. 2,180,863,000	Rs. 2,048,303,000
		(£155,764,000	(£146,308,000
		approximately)	approximately)

The combined revenues on all heads from entire British India were valued at something like £150 m. as against British £630 m. and German £583.7 m. from income-tax and customs alone.

At this stage it should be worth while to envisage the national income per head of population per year, which at two different dates is given for certain countries in the following table¹³ (in Marks):

Countries.		Pre-war.	Post-war.
1. U. S. A.	..	1,500 (1913)	3,230 (1926)
2. Great Britain	..	1,010 (1913-14)	1,620 (1924-25)
3. Germany	..	750 (1913)	1,095 (1929)
4. France	..	730 (1911)	980 (1925)
5. Italy	..	460 (1914)	460 (1928)

One should not rush into comparisons between the figures given above. In every instance there is a plenty of guess-work. Besides, the basis of calculation is widely varied. Exactly the same items of income are not included in each count. The result is that even in regard to the same country strictly scientific comparison is hardly possible between the pre-war and the post-war conditions.

Another estimate of annual income *per capita*, comprising Russia, Japan and India also, is exhibited below for 1923 (in Rupees) with the figures for 1913 in brackets¹⁴:

1. U. S. A.	..	..	Rs. 843	(1,053)
2. Great Britain	..	..	„ 636	(708)
3. France	..	..	„ 537	(546)
4. Germany	..	..	„ 342	(462)
5. Italy	..	..	„ 255	(324)
6. Russia	..	..	„ 126	(129)
7. Japan	..	..	„ 105	(90)
8. British India	..	..	„ 42	(36)

¹³ *Deutsche Wirtschaftskunde 1930* (Berlin), p. 330.

¹⁴ The values in Rupees have been estimated by converting the Dollar-values given in Fisk's *Inter-Ally Debts* (New York, Bankers' Trust Co. 1924). For the

The calculations were made right after the War and it is interesting to observe that with the exception of Japan and India all the countries mark a decline. One thing is clear that in this latter estimate even the relative distances between the different countries as exhibited in the previous estimate cannot be always detected.

We are neither interested in the discrepancies of estimate for the present nor in the scientific comparison between country and country (or between date and date for the same country) as to the differential tax-bearing capacity of the peoples. It is enough to know that the absolute amounts of *per capita* income in Great Britain, Germany, France, etc., are high, and incidentally that India represents a very low level in this regard.

It is the enormous increase of national wealth and national income in Great Britain and Germany that has rendered the increase in taxation possible in these countries. The huge expenses on "social services" point therefore to the tremendous enrichment of the British and the German peoples. Social insurance can thus be described as almost a luxury, so to say, in which only rich nations can indulge. A part of the same socio-economic complex is to be seen in the fact that liberal tax-revenues and heavy public finances mark the administrative machinery of neo-capitalism and the second industrial revolution.

The *trasferimento di ricchezza da una ad altra classe* on a more or less large scale is the most signal feature of contemporary institutional economics in virtually every country of the world. Extra-wage earnings or supplementary wages are through this agency normally flowing into the wage-fund or wage-stream. The solution of the wage-problem as a question of earnings derived by the workingman or clerk as a competitive economic agent is therefore a question which economics as such has failed to consummate. In so far as there is a solution at all it is essentially "uneconomic," and in the instance discussed, political. The problem of "fair wages" continues still to be the "will-o'-the-wisp" of economic theory.

The "Iron Law" in the Epoch of the Second Industrial Revolution.

As long as the state has to maintain, in part at any rate, the wage-earning classes in order to keep them going one is forced

purposes of this calculation all the 1923 currencies were reduced to the 1913 basis. See B. K. Sarkar: *Comparative Pedagogics in Relation to Public Finance and National Wealth* (Calcutta 1929), pp. 86—91 for these figures as well as interpretations.

to admit that the wages as economic categories, i.e., earnings in the "open market," fall short of the minimum requirements of the wage-earner. The wages, as they are, do not normally cover the necessities for sickness, accident, old age, unemployment and so forth.

The most stable of all economic generalizations, then, should appear to be the "iron law" of wages formulated by the German socialist Lassalle on the basis of Malthus and Ricardo.¹⁵ It can be traced indeed back not only to Adam Smith but even to Turgot's *Reflexions sur la formation et la distribution des richesses* (Reflections on the formation and distribution of wealth), 1766, nay, to Cantillon's *Essai sur la nature du commerce en general* (1735—55). The "iron law" or the Malthusian "standard of wretchedness" is to be interpreted in modern terms as the "physiological minimum" or perhaps the "social minimum" of existence involved in the "cost of production" of labour.

In modern times the general level of wages has risen, as one can see in the improvements in the *per capita* consumption of nations.¹⁶ But to use an old phrase in reference to modern conditions, perhaps it is still possible to speak in a rather general manner of the "standard of wretchedness" as determining the wage-rates in most occupations even in countries commanding high national dividends.

The improvement in the *real* wages is a fact in the social economy of many countries. This relative heightening of the standard of living has been attended with a more or less general democratization in the relations between the classes, which has got a fillip incidentally from the progress of civil law and constitutional liberalism.

Levasseur believed that *le juste salaire* (fair wage) could hardly be established by state-intervention. In his judgment an Act passed by the Government could never possess the elasticity necessary for adaptation to the variations of productivity, cost of living, local standard etc.

Notwithstanding this position natural to a *laissez faire* economist Levasseur¹⁷ admitted that *les institutions sociales ont*

¹⁵ O. von Zwiedineck: "Lohntheorie und Lohnpolitik" in the *Handwoerterbuch der Staatswissenschaften* (Jena), Vol. VI (1925), pp. 398-399.

¹⁶ *Barclays Bank Monthly* (London), March 1934, p. 9; Bowley: *Some Economic Consequences of the War* (London 1930), pp. 147-161; "Food Consumption of Working Class Families in Certain Countries" in the *International Labour Review* (Geneva), December 1933, pp. 873-876.

¹⁷ *Questions Ouvrières et Industrielles en France sous la Troisième République* (Paris, 1907), pp. 456, 584-586.

incontestablement une efficacité sur les salaires (social institutions, e.g., legislation and trade unions as well as strikes etc. have undoubtedly some influence on wages). This statement was, however, not unconditional in his thought. Altogether, "fair wage" was according to him only "*une expression sentimentale*," which, "applied to the entire working class of a country, is impossible to determine."

In Truchy's analysis¹⁸ the wage is a price, and the intervention of the state in the determination of price is a thing which "long experience has demonstrated to be not much efficacious but rather attended with perils." And yet he admits that one cannot assert that *l'intervention de l'Etat doit être de nul effet* (the intervention of the state is likely to be without effect), in regard, for instance, to the "minimum wage" especially for cases covering the "sweating system."

The hesitant attitudes of Levasseur and Truchy cannot meet the conditions of contemporary wage-markets.

On the other hand, it is impossible for the institutional economist of wages not to agree with Diehl's doctrine of *Machtverhältnisse* (relations between the "power" of the two agents of production, viz., capital and labour)¹⁹ as influencing the wage-rates. No realist can ignore the fact that the increase in the rates of wages, both nominal and real, has gone almost *pari passu* with the growth in the "power" of labour as organized into unions. Early in the nineteenth century the *Macht* (power) of the employer was *einseitig vorherrschend* (dominant in one-sided manner). In recent years the power of the working classes has increased because of the legal recognition of the "freedom of association" as well as the universalization of suffrage.

All these objective facts about the *rise* in wages may appeal to the students of statistics, economic history, and political development. The workingmen comprising the clerks, especially of the lower rungs, however, cannot afford to remain mere students of *relative* changes as recorded in statistics. Their attitudes *vis-à-vis* the employers, the bosses, the heads, the directors, the higher officials and the highly paid employees are no less objective realities in social economy to-day. The legal independence and the constitutional freedom that are alleged to be assured to the wage-earners and low-salaried clerks, teachers, and other employees are hardly appraised by them at the face-value, and it would be unscientific to take them at their face-value as long

¹⁸ *Cours d'Economie Politique*, Vol. II (Paris, 1934), p. 436.

¹⁹ *Die Grundbegriffe der Volkswirtschaftslehre* (Jena 1934), p. 144.

as the persons concerned are not prepared to take them so. A really objective analysis of the relations between the employers or highly paid employees and workingmen of all denominations on a statistical and quantitative basis would perhaps lead the genuine student of labour-economics to believe that the "fear of victimization" by the former is a perpetual fact in the social *milieu* of the latter, and that this one fact among others allied to it robs them to a considerable extent of the freedom and independence which they are alleged to enjoy in modern times under the economy of higher real wages and better standards of living.

Social inequality between persons of unequal incomes and different official grades is as great a reality as social inequality between persons of different races although of the equal earning groups and of equal cultural and other status. And these inequalities are hardly less extensive and profound for all practical purposes to-day than they were formerly, although no doubt slight improvements may be noticed in the manner in which formal or legal equalization has served to introduce among the upper ten thousands or the "superior races" an indifference to or toleration of the social liberties condescended to or enjoyed by the lower and the inferior persons. While taking stock of the economic and social advances in the epoch of neo-capitalism or neo-socialism one cannot afford to ignore the factual inequalities and indignities as human beings under which the workingmen, clerks, lower-paid subordinates, ministerial officers and other employees as well as the members of the subject races, depressed classes and other alleged inferior communities have to live to-day as in the epochs of previous economies.

It is therefore very questionable whether one can assert as Cannan²⁰ does that the "largest incomes have long passed the stage up to which an increase of income adds any appreciable advantage to its possessor." One will perhaps have to observe that from the viewpoint of "persons whose incomes are *nil* or very small," the advantages of persons possessing more than the largest incomes are not only appreciable but are eminently calculated to render them more and more invincible, more and more socially dangerous.

In an interesting examination of the progress in the standard of living etc., we find Cannan making the following statement: "The pauper or beggar of to-day has no greater income than Lazarus, and Henry Ford has a much greater income than Dives."

²⁰ *A Review of Economic Theory* (London, 1929), pp. 421-422.

In point of income, therefore, the difference between the richest and the poorest has been admitted to be greater than it ever was.

But it is curious that in the very next breath the following statement should be made: "But the gap in economic condition between Henry Ford and the pauper or beggar is not nearly so enormous as that between Dives, who "was clothed in purple and fine linen and fared sumptuously every day," and Lazarus, "whose many sores were licked by the dogs as he lay craving the crumbs that fell from Dives' table (Luke XVI, 19—21)." One does not know statistically as to how many Lazaruses of old had their sores licked by dogs in the manner described above. But the quantitative investigations into modern poverty will not fail to reveal the existence of many Lazaruses of to-day whose position *vis-à-vis* the contemporary Diveses might be almost identical with that of the Biblical legend.

Evidently, even with the second industrial revolution,²¹ neo-capitalism and social assurance we have not seen the last term in the progress of mankind, so far as the problems of the poorer classes are concerned. And as for India, situated as she is somewhere in the earlier stages of the first industrial revolution, equipped as she is with very few trade unions, and those again of a primitive and unorganized character, and suffering as she does under poverty against which a seriously planned warfare has hardly yet commenced, and where therefore social assurance is not yet a question of practical politics,—we have reasons to be more solicitous about the safeguarding of not only the economic welfare of our workingmen and other employees but also of their position as "moral agents." And in this regard nothing ought to be envisaged as more powerful instruments than the organization of trade unions on a legal and secure basis as well as the promotion of social insurance among all ranks and in all occupations.

Pareto's "Irrational" as the Safety-Valve in the Wage-Systems of Neo-Capitalism.

Discontent with the wage-systems of the day is a most prominent feature in contemporary economic thinking.²² One of the forms in which this discontent manifests itself is the speculation in favour of minimum wage under state control. In 1912 the idea was made prominent in France by Raynaud through

²¹ B. K. Sarkar : *Applied Economics*, Vol. I, (Calcutta 1932), chapter on the world-economic depression in reference to the regions of the first and the second industrial revolutions.

²² Truchy : *Cours*, Vol. II, pp. 436—440.

his *Vers le salaire minimum* (Towards the minimum wage). The question of minimum wage has attracted some attention in the U. S. also.

An equally strong criticism of the prevailing wage-systems is embodied in the ideas bearing on *l'allocation familiale*, the family allowance, to be paid to the workingman in addition to the regular wages. The conception is popular not only in France but has been gaining ground in the U. S. as well. Douglas's *Wages and the Family* (1925) is an exponent of this form of extra-wage earnings for labourers.

To-day it is not free competition that determines prices, wages or rents. There is the influence of moral considerations to be detected in almost every important economic transaction. Or, in any case the political consideration plays a leading part. The wage-systems of to-day have therefore grown into something more ethico-political than purely economic.

An instance of what may be described as "uneconomic" or "irrational" element in wage-system is the French law of 1886 which instituted the custom of conferring a *médaille d'honneur* upon a workingman who is associated with an establishment continuously for more than thirty years.²³

In the creation of values labour is no less a powerful factor than capital. The remuneration obtained by labour is like that obtained by capital in the last analysis logically—although not chronologically—dependent on the amount of values created. It is the marginal productivity that determines or rather ought to determine in both cases the returns to be enjoyed by each. In pure theory wages or the earnings of labour like the earnings of capital cannot but be integrally associated with the combined product.

Factually, however, in terms of economic, political and other social institutions the labour-agent in the creation of wealth has to operate under two sets of circumstances. In the first place, there is the positive dependence of labour on the already existing or prospective supply of capital and business organization. In point of time it is the availability of something like a wage-fund or wage-stream that is the *sine qua non* of labour at all functioning as labour in the economic order.

In institutional economics and in private law it is impossible to look upon labour as a colleague of the other partner or partners. Wage-nexus is the nexus of subservience pointing

²³ E. Levasseur: *Questions Ouvrières et Industrielles en France sous la Troisième République* (Paris 1907), p. 458.

inevitably to the status of labour as but the "second fiddle," so to say. Naturally, therefore, the iron law of wages which compels labour to submit virtually to the minimum level of life,—the bread-line or poverty-line, the "standard of wretchedness,"—is an economic reality of the first magnitude. Even without being a professional socialist every student of factual economics will have to agree with Franz Oppenheimer in his thesis as propounded in *Der Arbeitslohn* (1926), with Achille Loria in his *Il Salario* (1916), and with Hobson in his *Social Problem* (1901).

In the second place, no less important a reality in the economic *milieu* is the fact that the local morals, manners, standards of living, etc., are all the time, very often unconsciously perhaps, operating to the advantage of the socially weaker partner in the creation of wealth. In other words, the penury to which the workman is likely to be doomed on account of 100 per cent competition tends to be prevented from making its appearance and therefore somewhat counteracted because of the fact that competition can hardly always and exclusively command the field but is being modified by the play of custom, tradition, local usages and what not. To all this have to be added the conscious activities of trade unions and the influences of labour politics.

The workingman's right to "decent living," his demands for the requirements of a fuller and more efficient life, his needs as a "moral person" can therefore be satisfied to a certain extent and within certain limits by the provision of wages at rates which are beyond those dictated by free competition and the iron law.

While the theoretical limit of wages is set by the marginal productivity of labour the actual rates are determined by two conflicting sets of forces. On the one hand, there is the complex due to the virtual wage-fund or wage-stream and the virtual iron law. On the other hand, there is the non-competitive custom or tradition relating to the workingman's requirements. The actual wage-rates are not such as might be deduced from the "classical" capitalism of the abstract, Ricardian "economic man." In their formation a substantial although perhaps unconscious rôle is played by the "irrational," "illogical," nay, "uneconomic" sentiments and feelings of the real man of flesh and blood as understood by Pareto in his *Trattato di Sociologia Generale* (1916).²⁴

²⁴ Pareto : *Manuel d'Economie Politique* (Paris 1909), pp. 41-42, 51-55 ; Bousquet : *Essai sur l'Evolution de la Pensée Economique* (Paris 1927), pp. 239-241. B. K. Sarkar : *Ekaler Dhana-daulat. O Artha-shastra* (The Wealth and Economics of Our Own Times), Vol. II, (Calcutta, 1935), ch. on Pareto, pp. 392-399.

It is in the field of this second set of forces,—the non-competitive, uneconomic tendencies which serve to modify and counteract the full play of the Ricardian *homo æconomicus*,—that social insurance has been functioning. It is really an expansion of these non-competitive and uneconomic forces, and it operates not so much as a factor in wage-formation, as an embodiment of extra-wage earnings, *i.e.*, supplementary wages.

Perhaps it commences by ignoring the productivity of labour. It militates as much against the wage-fund or wage-stream as against the iron law of wages. And finally, it is the workingmen's needs and requirements as an animal, as an efficient agent of production, and as a "moral person" that constitute the chief concern of social insurance.

In so far as social insurance happens to embody extra-wage earnings it stands, as referred to above, as a permanent *critique* of the wage-systems of to-day, which, in spite of the Paretian "irrational" factors calculated to render the workingman's lot somewhat bearable, continue still to be dominated by the iron law. It is by discovering such a safety valve that the state and the employers have been seeking to meet the workingmen and other employees halfway, as it were, and capitalism is being transformed into a neo-capitalistic system of modified competition and relatively more humane economic relations.

This social philosophy brings into relief the attitude of labour not as being antagonistic to, but as something calculated to utilize, capital in the interest of the community or at any rate of the working classes. Instead of the class-struggle creed of orthodox socialism, namely, the antithesis labour *vs.* capital,—the atmosphere here is one of neo-socialism which may be taken to be the correlate or counterpart of neo-capitalism. Life and thought are being placed under conditions in which the "natural solidarities" of which classical economics speaks but which have failed to produce the just harmony of interests, as says Charles Gide, are likely to be completed and corrected by the "desired-for, deliberate and conscious solidarities" (*des solidarités vouloues, reflechies, conscientes*). And this system is relieving the individual on the one hand from the anarchy of blind competition and on the other from the killing yoke of collectivism. Private property is being maintained but being treated as a "social function," *i.e.*, as something subject to all the restrictions required by "public interest." The "conscious solidarity is going to redress by legislation the injustices of natural solidarity."²⁵

²⁵ C. Gide : *La Solidarité* (Paris 1932), pp. 162, 172, 186.

The Impact of Eternal Poverty on Wage-Considerations.

Poverty has been the eternal theme of social literature in the East and the West. Mukundaram's *Kavikankana-Chandi* (1589) exhibits the condition of Bengali peasants in the sixteenth century as Quesnay's *Tableau Economique* (1758) of the French peasants in the eighteenth.

In the nineteenth century Europe the poverty studies were transferred from the rural and agricultural to the urban and workingmen's conditions.²⁶ The Italian Gioia's *L'Attuale Miseria in Europa* (1817) and the French-Swiss Sismondi's *Nouveaux Principes d'Economie Politique* (1827) furnish pictures of the sufferings of the poorer classes.

The account that Rammohun Roy²⁷ gave of the standard of living of the Indian peasants and middle classes in the Statements to the Select Committee of the House of Commons (1831-32) is as dismal as the contemporary reports by Europeans about the conditions in Europe.

John Stuart Mill examining the "probable futurity of the labouring classes" said as follows in his *Principles of Political Economy* (1848):

"To work at the bidding and for the profit of another, without any interest in the work is not even when wages are high a satisfactory state to human beings of educated intelligence who have ceased to think themselves naturally inferior to those whom they serve."

Mill could not "persuade himself that the majority of the community would for ever or even for much longer consent to hew wood and draw water all their lives in the service and for the benefit of others." And he did not doubt that working men would be less and less willing to co-operate as "subordinate agents" in any work when they had no interest in the result.

In such "socialistic" or "communistic" and at any rate radical passages Mill was exhibiting his real position as that of a bridge between the orthodox, classical, or *laissez faire* school of economic theory and the yet militant socialism or labour-view of economic relationships. One should feel that since the establishment of social assurance under the leadership of Bismarck during 1883—1889 the world has advanced quite far along the lines suggested or at any rate hinted at and piously wished for by Mill. The neo-capitalistic

²⁶ A. Niceforo: *Antropologia delle Classi Povere* (Milan 1908), pp. 12—15.

²⁷ *The English Works of Raja Rammohun Roy* (Panini Office, Allahabad, 1906), pp. 297-298.

solicitude for the workingmen's interest or the neo-socialistic *rapprochement* with the employers' ideas about their place in the economic system may indeed be regarded as the practical consummation of the halfway houses embodied in Mill's views and suggestions.

There was a time and that not very long ago when economists and statesmen used to fight over the question as to whether grants in aid of wages might lower wages. Marshall,²⁸ for instance, had to argue that this doctrine might be taken as valid for most practical purposes. But it tacitly assumed certain conditions, and those were not universally present.

It was also seriously suspected that a tax levied on the well-to-do for the benefit of those whose means were small, as recommended by Charles Booth, might ultimately lead to the lowering of wages. But against this view Marshall gave the opinion that under certain circumstances the wages were not likely to be lowered even if a heavy tax were to be levied on capital. Among those circumstances one was to the effect that the money would be spent for the benefit of the rising generation, and another that stringent sanitary and educational regulations would accompany the relief granted.

The unconditional validity of the doctrine that it is unjust to levy taxes for the relief of "poverty" until it is so extreme as "indigence" was challenged by Marshall. "Patience in bearing other people's sufferings is as clear a duty as patience in bearing one's own, but it may be carried too far," said he. Another of his very striking passages runs to the effect that there are "some who think that the present methods of poor relief and charity will very soon leave very little suffering, which is not needed to educate people to braver and stronger lives; and they are right in calling for patient adhesion to present methods." "But such patience appears excessive to persons, who, like myself, think that there are still many hardships which cost more pain than they are worth for the purposes of education."

In these views and sentiments Marshall was but continuing the tradition of Mill. We encounter in the *Official Papers* of Marshall the same atmosphere of enthusiasm for the amelioration of the conditions of the paupers and the wage-earners as characterized the *Principles* of Mill.

It is therefore curious that Cannan²⁹ whose examination of

²⁸ *Official Papers* (London 1926), Memorandum and Evidence offered to the Royal Commission on the Aged Poor, 1893, pp. 201—203.

²⁹ *A Review of Economic Theory* (London 1929), pp. 434—437.

the factual progress in equality, security and independence as embodied in the economic institutions of the modern world is eminently acceptable as both objective and critical should have failed to appreciate Mill's logic and sentiments and go out rather to find fault with his "enthusiasm" and condemn his alleged "confusion of mind."

A more reasonable view would be to take Mill's position as valid for to-day also in spite of the higher wages and notwithstanding the facts of progress in equality, security and independence.

In the following manner Adolf Weber³⁰ combats the *eherne Lohngesetz* (iron law of wages) as formulated by Lassalle: "It would be possible to maintain this thesis if the 'amount of labour offered' were determined by its 'costs of reproduction' in the sense that along with every rise in the productivity and therefore in the wage the number of workers *entsprechend vermehren würde* (would rise in the corresponding or proportionate manner)." Such a state of things is considered by him to be impossible in reality (*davon kann in Wirklichkeit gar nicht die Rede sein*). Another possibility for the operation of the iron law is mentioned by Weber; for instance, if through economic and political *Misswirtschaft* (maladministration) the formation of capital and the supply of capital would become steadily so short that they would not be adequate enough for maintaining the existing supply of labour in employment.

Although the first proposition is somewhat too optimistic it is not unacceptable. As for the second, it invites mankind to be perpetually on guard against mismanagement and alert in regard to the creation of fresh capital and stimulation of new economic activities. This position also is quite humane and acceptable.

But while sympathising with these propositions the student of economic theory cannot remain blind to the reality of wage-conditions. The labour-market is factually so regulated that the "earnings of labour" prove to be too insufficient for the necessities and of course the comforts and decencies of life. The very dependence of the wage-system on "supplementary wages" of all sorts from the *médaille d'honneur* and *l'allocation familiale* up to "transitional benefits," *Krisenunterstützung* (crisis or emergency relief) and *Winterhilfe* (winter-relief organized by Hitler) furnish the most positive evidences to the

³⁰ *Kurzgefasste Volkswirtschaftslehre und Volkswirtschaftspolitik* (Munich 1935), p. 105.

prevalence of "iron law" in the wage-formations of this the latest period of technocracy and industrial civilization.

And sociologically considered, Bouglé³¹ is not taking too radical an attitude when he sees in the militant syndicalists, champions of "industrial democracy" as they are, but the standard-bearers, albeit critics and open opponents, of the "formal democracy" of law and parliament. For, after all, the economic conditions which evoked the demand for an "ideal organizer" in St. Simon, "the new moral order" in Robert Owen, and the "paternal proprietor" in Le Play, still obtain. In the last analysis the student of poverty can only cheat his intelligence or conscience by refusing to admit the validity of the fundamental syndicalist faith in non-political economism and avoidance of parliamentary paraphernalia.

The *status quo* of neo-capitalism or neo-socialism, representing as it does a remarkable phase in the evolution of social welfare institutions, must not be made too much of. There is a limit to "solidarism" as a socio-economic agent. The monistic Society-cult of Durkheim, like the absolutist State-cult of Hegel, determinist as it is, requires to get oriented once more to the demands of the creative Individual, the self-determined *Purusha* of Hindu ethics, the man as a "moral agent" of Kant. It is in the *critique* of the social order by the "man in the street," as British individualists would say, from the view point of economic inequalities and allied indignities that the *élan vital* for progress towards the next stage is to be found. The economics of social insurance *vis-à-vis* "fair wages" will have to attend to such *critiques* in a thoroughly objective manner.

It is the economic "individual" with his changing or growing ideas of "physiological" or "social" minimum that sets the institutional dynamics in action. And it is here that we encounter the thousand and one "irrational" factors in the human personality. The new guises of eternal poverty can be combated by attending to the emergence and transformations of such "irrationals" in the *homo oeconomicus*. The doctrine of the transference of wealth from class to class has to be taken as an "inseparable accident," an inevitable item in the realistic wage-theories of the epoch of neo-capitalism. It is in the domain of "uneconomic" economics that fair wages can have a legitimate place.

31 *Socialismes Français* (Paris 1933), pp. 168, 188-189.

THE ROLE OF WEIGHTS IN INTERNATIONAL TRADE STATISTICS

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It is customary in discussions pertaining to international trade to stop with an examination of the statistics of quantity and value ignoring entirely the qualitative aspect of the matter; for instance, if in a particular year the total trade of India with country A were to the tune of 10 crores of rupees and with country B 8 crores of rupees, it is immediately made out that the trade with the former country is more to the advantage of India than that with the latter. This has been probably due to the difficulty of properly assessing the qualitative importance of the trade in the two cases. Thus Sir Harry Lindsay¹ was led to ask "Would it not be possible to apply some simple 'weighting' formula whereby imported manufactures and raw materials imported and re-exported without processing are given a fairly low unit of value in an attempt to assess the quality of international trade? Whereas raw materials produced for export or imported for processing, manufactured goods made for export from imported raw materials or semi-manufactures, and finally manufactures made for export from local raw materials are each given their due value?"

To answer Sir Harry's question fully is no easy task; the whole difficulty lies in assigning proper weights to the various broad groups into which he divides the articles. It is easily admitted that exported manufactures ought to be weighted heavier—from the point of view of the country considered—than imported manufactures. But how are the weights to be determined? In some special cases Sir Harry's suggestion will be of much help; for instance, if we assume that the total trade of a given country with country A is equal in value to that with B and further that A imports more manufactures than B does from the given country, then in general it is right to conclude that the trade of the given country with A is more profitable to the former than that with B. Any number of such particular cases

¹ *Journal of the Royal Statistical Society*, Vol. XCVII, Part III, p. 407.

may arise but all will admit a similar solution. On the other hand in the more complicated cases it is clear at the outset that any sets of weights that may be assigned to the various elements are bound to be arbitrary and to lead to different or even conflicting results.

Thus we are driven to other ways of tackling the problem. What appears to be an unobjectionable method of weighting is the following:—Take the case of country A. Let it be required to assess the true importance from its point of view of its trade with B and with others. Ordinarily A will import some articles from B and export some to it. Now suppose that a certain commodity which is supplied by B to A could be supplied by some other countries also. Then is it not reasonable to say that from A's standpoint the weight that must be attached to the value of its import of the article mentioned must vary inversely as the number of countries including B that could supply it? To take an example, if Japan and the United Kingdom can each supply India with her requirements of cotton piecegoods over and above her own production for home consumption and if she is purchasing a portion of her surplus requirements from the United Kingdom, this portion of her trade with the United Kingdom must be assessed at one half of its value. If India has a monopoly of jute, it follows that a country which imports jute from India will have to assign to the import its full value.

As regards exports a similar argument will show that if other countries also could supply a specified country what it buys from us and yet we continue to be favoured by that specified country, the weight that we assign to this part of our export trade with the specified country should vary directly as the number of competing countries including our own. Thus if Argentina can compete with India in supplying linseed to the United Kingdom but the United Kingdom prefers to buy it from India, from India's point of view her export of linseed to the United Kingdom must be assessed at twice its value.

The drawbacks of the above scheme must also be mentioned. First, it takes for granted that every country that gives us a portion of our requirement of a certain article is capable of supplying us the whole of it. Secondly, the multiplication or division of the value of the articles by the number of countries may appear arbitrary. Thirdly, no account is taken of the *entrepôt* trade which is of much value in some countries.

As against this it may be pointed out in support of the method suggested that the assumption mentioned first in the last paragraph does not take too much for granted. It cannot be

maintained that if Japan stands aloof India cannot have her surplus requirements of cotton piecegoods supplied by the United Kingdom and vice versa. In a vast majority of cases our assumption will be valid. As regards the second point it must be said at once that the simplest method in such problems as the present one from the point of view of arithmetical computation is multiplication or division as the case may be. The third point raised in the last paragraph can also be answered. If the re-export trade of a country to another is very small in comparison with the total trade even its omission will not appreciably alter the results. But if it is fairly large the best method appears to be to classify it under exports making sure that the corresponding imports have been accounted for.

In conclusion it must be mentioned that the figure we arrive at by the process of weighting is to be used only for purposes of comparison because it is merely a sort of index number and has got all the weaknesses of an index number.

The statistics given below are adapted from table No. 12 of the *Review of the Trade of India* for 1932-33. It has been possible to deal with only one side of the matter, namely, India's import statistics. India's import from Italy has been chosen for study.² The item 'other articles' in the table has been assigned unit weight in the absence of further information on the matter.

Articles.	Value in thousands of rupees.	Number of countries supplying.	Value after weighting (000 omitted).
Apparel . . .	314	7	45
Art, works of . .	113	1	113
Building materials .	524	7	75
Buttons . . .	564	3	188
Chemicals . . .	1514	5	303
Dying and tanning substances . . .	794	9	88
Fruits and Vegetables .	1919	7	274
Glassware . . .	217	7	31
Instruments . . .	734	8	92
Liquors . . .	210	6	35
Machinery . . .	734	8	92
German silver and quick silver . . .	1362	1	1362

² When this note was in preparation, the visit of an Italian Trade Delegation was impending—but it did not come off.

Articles.	Value in thousands of rupees.	Number of countries supplying.	Value after weighting (000 omitted).
Other metals . . .	227	12	19
Motor Cars, etc. . .	480	7	69
Paper and pasteboard .	375	11	34
Rubber manufactures .	1503	8	188
Stone and marble . .	406	1	406
Artificial Silk Yarn .	4780	7	683
Cotton, raw . . .	87	6	15
Cotton, twist and yarn	5	7	1
Cotton, manufactures .	2206	13	170
Haberdashery and millinery . . .	982	6	164
Silk manufactures . .	2438	7	348
Piecegoods of cotton and artificial silk .	2185	2	1093
Wool manufactures . .	7498	8	937
Other articles . . .	7312	1	7312
TOTAL . .	3,94,83	..	1,31,37

The Review mentioned above puts the value of India's imports from Belgium at 3, 41, 84 thousands of rupees which is reduced to 96, 45 thousands when proper weights are applied to the various items. Supposing however that there is a uniform increase of 18 per cent in the values of the several items imported from Belgium the unweighted value of the imports on the whole will rise well over 4 crores of rupees but the introduction of weights will reduce this to 11381 thousands. Now, the total value of India's imports from Italy is less than 4 crores of rupees and after weighting it is 13137 thousands. Thus it is seen that though at first sight Italy appears to be the less important from the point of view of India's import trade, an appropriate method of weighting leads to the opposite conclusion.

SOME REFLECTIONS ON THE FUTURE OF ECONOMIC ORDER

BY

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With the march of time social, political, religious and economic organisations of the people are getting more and more complicated. Everywhere unifying and co-ordinating tendencies are distinctly observable. In the realm of politics the relations between men and men and States and States are growing, if not stronger, at least more diversified. The former liberty of single, isolated States has now been replaced, however unsatisfactorily, by the overpowering authority of the League of Nations. In the sphere of social customs the same tendency is visible. The impact of modes of living and forms of behaviour in one part of the country on those prevailing in others are ever growing stronger. But it is perhaps in the economic field that such a tendency has reached its farthest limit. There is no individual in a town, no town in a province, no province in a country and no country in the world that is entirely self-sufficient. The dependence of one on the other has ever been growing more and more complicated. And not only has economic progress (retrogression!) witnessed such a division of labour between men and men or countries and countries of the same generation, but also the growth of a system by which the dependence of the people of one generation or time on that of another has become a dire necessity. The institution of credit and the use and abuse of the system of public and private debt have created and strengthened the economic ties that now bind one generation with another.

The economic relations of men express themselves in a tangible manner in the shape of the creditor-debtor relationship between people. The buyer is the debtor, the seller the creditor. This relationship may last for a few seconds or extend over a large number of years. The greater the duration of this period the vaster are the complications that the economic organisation has to face.

The very system of production that has step by step grown up from the primitive methods of satisfying wants directly has been responsible for the creation of this state of economic dependency of one generation on another. Our methods of production, on the technical side, are growing more and more complicated, more and more *round-about*. The importance of *fixed* and *specific* capital has vastly increased. The *period of production* or the *period of investment* has lengthened out. The changes in these directions have necessitated a reliance on the institution of borrowing and the use of long term debts. In a word, the whole economic organisation has become more intricate like a modern piece of machinery and more unified like the League of Nations.

The characteristic feature of such an organisation is its ability to serve the needs of the people more thoroughly or perhaps to face the changing situation more comfortably. Like the human organism it is the outcome of a natural evolutionary process. The human body is more complicated in its functions than that of any other organism on a lower scale. The present economic order is likewise more intricate. But like the human body the present organisation is more delicate and sensitive too. Delicate in the sense that the least injury to it puts its machinery out of gear. It is sensitive in the same sense. In the degree in which it has grown more complicated it has become more delicate and sensitive. In other words, the economic structure has become rigid. The flexibility of the primitive system has gradually disappeared. Like the human organism its power to adapt itself to changes in circumstances has considerably weakened. The lower forms of life can easily survive the cruelty of the surgeon's knife. Cut into two the organisms lower down the scale are none the worse. The human body can least stand such inroads on its delicate structure. The present economic system is rigid in precisely the same sense. The *immobility of factors*, the *specificity of capital*, the *rigidity of the system of distribution* all account for the lack of flexibility. This lack of flexibility is, in a large measure, responsible for the ups and downs of economic life—the booms and depressions,—of which the world has grown weary and might grow still more so in time to come.

To me all this appears as a natural growth—the manifestation of the slow but steady working of the process of natural evolution. Social, political, religious and economic organisations must grow—become more complicated, more delicate, more rigid. They are better adapted to serve the needs of the time, or to be more true, better planned to face the situation. They

require a more careful handling, delicate as they are, and a more intelligent looking after. But a time comes when these organisations grow beyond our power to cope with the situation. Our ability to bestow care and take wise decisions does not grow in proportion to the complications of the system. The unifying and co-ordinating forces on the physical plane work faster than similar forces on the intellectual side. The structure of production, for example, grows more complicated—systems of production expand—but the minds of men do not grow in the same degree. The League of Nations may come into being, international combines may spring up, international organisations of labourers may be formed but no “league” or “combination” of human brains is thinkable.

The life of an individual has always been a history of growth, decline and fall of an organism. Animate and inanimate objects must all have these periods. Be it a story, an epidemic or a civilization, its course must be marked by these three stages. Institutions have grown and big civilizations have flourished, all to perish in the end. Our present economic order must meet the same inevitable end.

The tendency towards co-ordination and unification of various human activities and organisations now manifests itself in its most recent and perhaps the final phase of national economic planning. International planning would be the last stage if we could let the economic forces stretch themselves out to their logical end. But it would be unjustified optimism to imagine that economic life on anything like the present scale would survive the shocks of national planning in the midst of all the other economic developments which, as above referred to, characterise the present economic order.

National planning is then perhaps the last attempt of the economic structure to adapt itself to rapidly changing circumstances. The necessity for economic planning is merely the necessity for a central machinery to guide and direct the various economic activities and organisations which have now come to form, or present an unified whole. That co-ordination on the physical side should be accompanied by a like co-ordination on the mental (or the planning) side has already been mentioned. In the good old primitive days when the unit of economic life was a family or at most the people of a small town, the unco-ordinated minds of men (with the natural forces of sympathy and perhaps telepathy somehow co-ordinating them) were sufficient to cope with the work. The difficulty of balancing demand and supply did not make itself felt.

But with the ever-growing size of the unit of economic life—with the greater and more perfect dependence of one person, industry and country on the other and one generation on the next—the imperative need for some sort of central planning organisation has come to the forefront. We have now, therefore, before us—before the economic world—the greatest of all experiments, the magic wand ready to strike the economic order, the last time, transforming the hitherto ill-co-ordinated attempts of diverse industries and people into a pleasing network of human activities keeping time with one another. And the discord of blind activities will be metamorphosed into the harmony of well thought-out processes. A complete integration in the realm of economic life will have been achieved. Just as the souls of men shall one day merge into the Supreme spirit of God so shall the economic behaviour of individual units merge into the grand national system. A perfect pattern! Conflict of economic motives and ends shall for once disappear—demand shall exactly balance the supply. (And yet it shall be no one's demand and no one's supply.) But with that shall emerge on the field the most delicate of all economic organisations. A particle of dust settling on one of the wheels of the intricate machinery shall stop the entire system. The impact of one shall be on all. The potentialities of well-ordered life shall be vastly increased. But the life of the entire nation shall be at the mercy of the central machinery. Let it take one wrong step and the economic structure shall shake with the violence of repeated earthquakes. If only the human minds or human organisms could be infallible we would for once have an utopian economic system. But such minds shall not grow at our bidding. Let economic planning come. It shall be for our good, for our best—we shall have reached the hill top, but only to come down on the other side.

Yet, this is not meant to be a warning against economic planning. It is a stage, as already observed, in the evolutionary process. It is necessary just in the same sense in which effect can be thought of as the necessary outcome of a cause. Planning may be a necessary *evil*, but it is *necessary* nevertheless. There is no way out of it and yet to be in it is no guarantee of safety.

We are living as ever in a dynamic world. The conception of a static world is immensely useful but it is after all a mere conception. The world moves round the Sun and with it we have to move round and round too. Change is the essence of life. To be stationary is to stagnate, to die. We cannot live as we are living to-day. We must move with time if only to move out of it. When economic planning has with one stroke of the pen

unified and harmonised and rationalised and systematised the diverse currents and under-currents of life what shall we do? Shall we stop still and laugh at our past follies and imperfections? Or shall we look ahead for further glories and laurels new? In a dynamic world, of course, the latter. But no, we shall not look ahead nor strive for better order still—we *shall have to go ahead*. The invisible hand of Nature *shall* lead us on. To believe in evolution is to believe in the steady and overpowering influence of some uncontrollable forces. Our economic organisation progresses, or to be more precise, changes in strict and humble obedience to some profounder and vaster forces than the conscious wishes of men. The course of life of an individual is seemingly directed by his free and conscious will and yet it exhibits the three stages of growth, decline and fall as much as the life of any other organism. It requires only an intelligent mind to find the parallel in the economic life of a nation or the world. Do what we will (if we really could do what we would) there is a set order in which our economic organisation shall move.

Communism is the *end* of political aspirations, at least, for many schools of politicians. Planning is the goal of economic achievements. With the end of aspirations and achievements shall come also the end of life.

When the day has had its glory and the night has spent itself out, the dawn of new day appears again. Such is the course of human civilization too. We begin with life on a low scale, economic activities scattered, simple and of short durations. In course of time it reaches a higher plane, enriched by the various ties that bind economic activities one with another. We begin to plan for the future. From the vision that looks not beyond the morrow there grows a deep penetration that extends through generations. Then the structure becomes top-heavy; the foundation shakes, but the structure stops not growing. Unable to stand it topples down and the economic system is scattered to pieces, once again to begin where it had started.

A sad reflection. But the signs of the break-up of the system are already visible in certain quarters. The organisation that had been built up with generations of solid and patient work, I mean, the division of labour between countries, has now begun to decompose. With the League of Nations striving to build up and maintain solidarity of nations and economic organisations, there is also discernible a growing movement towards nationalism feeding on mutual distrust and aiming at economic self-sufficiency. In this movement there is of course nothing that points to the

final break-up of the economic life of a nation. But that delicacy and intricacy of organisation which the natural evolutionary process, culminating in economic planning, shall inevitably graft into our system, must some day sound the death-knell of our life.

PUBLIC WORKS AND LABOUR EMPLOYMENT

BY

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[Section I deals with the theory of public works expenditure in relation to labour employment. Section II narrates the public works expenditure policy under the New Deal of the U.S.A. And Section III discusses this policy with reference to Indian unemployment.]

I

(1) There is something attractive about the proposal for a great public corporation like the state to take up the slack of private unemployment in the trough of the depression. It is admitted by the most ardent advocates of such a policy that the programme must be planned in advance to community needs and financed indirectly from the surpluses of prosperous periods. Further, it should be related to regular public and private enterprise as to timing, wage rates and mobility of labour and lastly, wisely administered. Only under such conditions could it be conceived to go far to conserve and increase individual and public values, to distribute purchasing power and increase the permanent real income of the people without adding redundant production, and thus to prime up and stabilize private industry.

(2) What are the theoretical foundations of such a proposal? To be precise, we have got to find out the cumulative effects of changes in aggregate spending, as illustrated by Public Works, on employment in the country. It must be pointed out that if the Government acquires funds (either by borrowing or by taxation) which would otherwise have been spent privately, it would be a case of mere *shifting* of expenditure. But if the Government acquires funds which would not otherwise have been spent, when these are spent the aggregate spending is increased. Borrowing may be a likely method of doing this. Further, such an expenditure may or may not involve literal monetary inflation. Although the principle involved is not confined to public spending this application of it assumes prominence because it is important and can be positively controlled and used as an instrument affecting general purchasing power.

Let us trace the effect on employment of labour from the migration of a rupee spent on Public Works by the Government. The theory is that a *primary* change in total spendings is thus introduced; there are resulting changes in incomes and in individual spendings; and that these react upon business spendings in a cumulative fashion, *ultimately* getting feeble and exhausted in their regenerative effect. Public works are thus economic parallels to the monkey glands associated with Dr. Voronoff!

We may classify in this connexion, the employment of labour as: (i) direct primary (on the public works); (ii) indirect primary; and (iii) secondary. It is in the last that the cumulative effects of spending are to be found.

The Kahns-Keynes approach is indicated below. Expansionary expenditures lead to a resultant increase in incomes. This leads to increased spending (of the cumulative type) by the recipients of incomes. After that there is a resultant but dwindling series of successive increments of income and expenditure. It is by this route that money injected into the economy as payment to labour employed in direct primary activities results in rising prices, larger physical production and increased real incomes.

All this may be represented in one of two ways. Firstly, by means of a graph. OX axis represents time or each cycle period; OY represents employment. We will get a rising curve. The rate of rise will depend, of course, on the time element representing the number of such income-expenditure cycles. This curve will taper off towards a horizontal asymptote. The height of this limiting-asymptote will be determined by the percentage of the "leakages." A second way is to draw a figure almost like the Physiocratic "zigzag"—the landlord's advances being replaced by Government expenditure on the *primary* activities; the left hand column showing filtration of that expenditure in the national economy through the private budgets of the labourers; and the right hand column showing the *response* of the credit institutions to the price changes thus introduced. I think this has greater advantages over the graphical representation.

(3) The shortcomings of public works policies are obvious. Such policies are severely circumscribed on the time-side. Further, there are several *counteracting* factors of which the more important are detailed below:—(i) unlimited deficit financing impairs business confidence; (ii) costs of construction may be bidding up against private enterprise, or prevent them from falling low enough to be attractive; and finally (iii) if an increase

of business is known to be due to public deficit-spending, which presumably must come to an end before long, business for that reason may fail to respond. Add to these the difficulties of devising, initiating and developing proper plans for expenditures.

Weighing the pros and cons of public expenditure on capital development with a view to relieve unemployment, opinion can be classified under three heads:

First, those who base their objection to capital expenditure on the fixed obligations it lays on the future and the re-distribution of income this may bring about;

Second, those who in theory support public works during the trough of depression (assuming that one can decide at what point a depression is at its lowest), but see little opportunity for any real acceleration;

Third, those who feel that there is an urgent social need for a national attack on the slum question and useful opportunity for improving public amenities and at the same time create a substantial volume of employment (*c/f.* "Monetary Policy and the Depression," p. 67).

II

(4) The Recovery Act of June 16, 1933, had as the preamble—"a national emergency productive of wide-spread unemployment and disorganization of industry, which burdens interstate and foreign commerce, affects the public welfare and undermines the standards of living of the American people, is hereby declared to exist." Title II in the Act related to the formulation by the President through an Administrator of Public Works of a comprehensive programme of public works and authorized the appropriation of 3,300 million dollars to finance its accomplishment. On July 8, the Administrator was appointed and the process was begun of formulating, financing and defining the detailed policies of the programme, with a view to providing employment and purchasing power through expenditures made in connexion with construction. A programme of relief was started initially to be superseded later by one of Civil Works introduced as a stop-gap into the Public Works programme. To this about 400 million dollars were allotted. About four million men were employed during the winter and early summer months of 1933-34. Later on the Civil Works policy was substituted by

a "Three-point-programme-of Relief." The three points were—help to distressed farmers in rural areas; to stranded population of industrially defunct localities; and to unemployed in large cities.

(5) The functions of the Public Works Administration, a planning agency in the federal and other public construction fields, were to approve and finance only such projects as were deemed by it to be socially desirable, engineeringly sound and having due relation to local and regional planning in so far as it exists.

The financial basis of the Public Works Administration may be indicated as follows:—Out of the grant of 3,300 million dollars, 625 million were set aside for the use of other agencies, and 372.5 million were allotted for administrative expenses, land purchases, etc. Deductions such as these left approximately 1,665 million dollars for the Public Works. Between July 1, 1933 and July 7, 1934, the Federal Government financed construction amounting to five billions of dollars. 1,100 million dollars were secured by bonds and are reimbursable.

The process of translating the appropriation into employment involves: its allotment to particular activity; loan and grant contracts to enterprisers; the construction contracts; and the performance of the construction contract.

(6) The results of the spendings of such vast sums were the construction of ships, dry docks, afforestation, surveys of various types, sanitary improvements, conservation of natural resources of land and timber, the governmental development of hydro-electric projects and the regional plan in the Tennessee Valley.

Upto July 15, 1934, the programme had provided roughly one and one-half million hours of work—Public Works labour is given 'just and reasonable wages' on a 32-hour week basis—on direct construction site employment. It is estimated that the same number of hours had been achieved by contracts already entered into. It is believed that for each hour of direct employment, two hours of "behind-the-lines" work is provided in connection with the production, fabrication and transportation of supplies and material. Actually, the rise of employment was slow. The President said, "We might as well be perfectly frank. It has been exceedingly difficult honestly to allot the entire sum of 3,000 million dollars to worth-while projects."

(7) Some relevant statistics are appended below, mostly taken from the *World Economic Survey*, 1934-35. These statistics read in the light of the theory discussed above and the following extract from the *World Economic Survey*, have

significant implications for the advocates of the policy of public works expenditure in India:

“Unemployment, though falling, remained very great. Estimates of the total number of unemployed at the beginning of 1935 ranged about the figure of ten million *It was more than ever clear that the absorption of the remaining ten million awaited a revival of private enterprise.* Meantime the total of persons in receipt of relief rose to about twenty millions The drain, not only on Federal but on State and municipal funds was very heavy and private charity was drying up. In April 1935, the Administration was granted a new appropriation of no less than 4,880 million dollars for public works and relief expenditure.”

(a) *The percentage changes in Business Activity.*

	March to July 1933	July to Dec. 1933	March to Dec. 1933
Industrial production	-66	-25	-25
Factory employment	-23	-3	-25
Wholesale prices	-35	-6	-43
Cost of living	-4	-3	-8

(b) *National Indices of Industrial Production in June 1932—1935.*

(Base: Average 1929=100.)

Country	1932	1933	1934	1935
United States	50	76	70	72

(c) *Index Numbers of Employment by Groups of Industry.*

(Base: March 1932=100.)

	End of March.	Mining.	Engineer- ing metals.	Build- ing.	Textiles.	Printing paper.	Food.
U.S.A. . . . 1933		90	74	78	92	90	84
.. . . 1934		101	128	111	120	107	117
.. . . 1935		107	138	113	119	105	113

III

(8) The need for a suitable programme of public works in India has been frequently stressed. It is here conceded at once that such a policy will provide the country with a better economic equipment. The problems of public finance in India are largely problems of growth.

The point of difference comes in when one is asked to believe that just as in the other industrially advanced countries judicious public expenditure may cause an upward spiral in prices and consequent possibility of business recovery, the

problem of unemployment in India can to a large extent be solved by embarking on programmes of public works expenditure.

The public works expenditure programme planned in other countries rests on different foundations. It is not intended to attack anything that is *chronic* in nature. It assumes for its successful working, the presence of a large number of private enterprises which can, if sufficiently patted, be jerked into activity.

(9) The main facts regarding unemployment in India are :—

1. It is diffused and scattered.
2. Every occupation has a certain number of persons directly unemployed, a relatively big number treating it as subsidiary and a fair proportion of others, who entirely unemployed, yet can to a limited extent, be bunged into it.
3. Indian unemployment is seasonal and migratory.
4. The very employing strength is relatively as well as absolutely small.
5. The number and character of enterprises which will join the dance and lift whatever unemployment they can, is limited and meagre.
6. The curious fact is that the Administration and the organized industries employ 1 per cent each of the total population.
7. Finally, it may be pointed out that the economic structure in India is still fairly rigid and such limited price changes as may be caused by increased expenditure on public works may not necessarily lead to further production and much less to employment of labour in any significant numbers.

COST OF LIVING, WAGES AND THE STANDARD OF LIVING OF INDUSTRIAL LABOUR AT CAWNPORE

BY

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The post-war industrial history of this country reveals an increasing degree of conflict between the management and its employees. Most of the disputes centre round the problem of either a demand for an increase in wages or a threat for a cut in wage rates. The abnormal and violent fluctuations in prices of goods and services in the closing years of the Great War made it difficult for the industrial labour class to maintain even the semi-starvation standard of living to which they had become long accustomed. The pressure of insistent demand of the labourers for an increase in wages coupled with high war profits brought an increase in factory wages in nearly all industrial centres in this country. The war profits and the boom period did not last long and two or three years after the cessation of hostilities between the belligerents normal pre-war conditions prevailed in the industry. The World Economic Depression which followed this period further aggravated the problem and now the employers, in order to meet the deficit in their balance-sheets which they were facing year by year, wanted to take back what they had given during the war.

A systematic study of the three interrelated factors—Cost of Living, Wages and the Standard of Living—is therefore necessary. The author made such an attempt for Cawnpore. The inquiry extends to a period of over two decades from 1914 to 1935 with the average of the quinquennium immediately preceding the Great War (1909—1913) as the base period. Movement of prices of commodities usually consumed by the labourers were recorded for the whole period year by year. Monthly family budgets of the workers were collected on a Random Sampling basis and commodities were weighted on the basis of actual expenditure as shown by the family budgets. Workers were classified into four groups, namely, the lowest income grade earning below Rs. 15 per month, the lower middle

income grade with an income between Rs. 15 and Rs. 30 a month, the upper middle income grade ranging between Rs. 30 and Rs. 40 per month and the upper income grade between Rs. 40 and Rs. 50 per month. Separate cost of living indices were calculated for each grade and a 'Weighted Overall Average Cost of Living Index' was calculated for all labourers on the basis of numerical strength in each grade. On the above-mentioned basis the movement of General Cost of Living Index at Cawnpore has been as follows*:

Year.	General cost of living index.
1909—13	100
1914	125
1915	131
1916	127
1917	131
1918	153
1919	203
1920	202
1921	205
1922	192
1923	165
1924	163
1925	176
1926	179
1927	197
1928	192
1929	197
1930	170
1931	143
1932	143
1933	136
1934	130
1935	141

Wages.

Wages vary from industry to industry and from job to job. No reliable statistics about the wages of industrial labourers at

* The paper showing the calculations and the details of indices was read at the First All-India Population Conference and will be published in "Sankhya."

Cawnpore are available. The Government of India publication 'Prices and Wages' recorded the wages paid by a few industrial concerns for most of the jobs in an industry in the different provinces of the country. For two reasons these figures do not depict the true state of affairs. Firstly, the classification of labourers in all the departments of an industry is not uniform. In many cases wages are quoted only by males, females and children. Secondly, in arriving at the average monthly wage of a worker in a particular department, the monthly paysheet of the factory of that department was divided by the number of employees in the department. It was only a simple arithmetic average affected by the high wage of a mistry and the very low wage of an unskilled labourer. The publication was, however, given up in 1923. Since then annual reports of the working of the Indian Factories Act in these provinces recorded the provincial average of the wage rates for a few selected jobs. The data supplied by these reports are very meagre and undependable. The wages for a few jobs are quoted even without mentioning the name of the industry and the nature of work, e.g., a fitter or an engine driver in a big factory gets more than Rs. 100 a month and a fitter or an engine driver in a small repairing workshop earns about Rs. 20 to Rs. 25 a month. In the reports both of them are totalled together and divided by 2. Secondly, the figures are the simple arithmetic averages of the wages paid by all the employers in the province who submit the returns in different departments of their mills by the total number of employees in these departments. These figures were quoted only up to 1928 and were subsequently given up. Personal inquiries were made in 1929 and 1935.

No definite information is available about the number of employees employed on various rates, and without this, reliable average rates cannot be obtained even for men on monthly rates of pay; while the piece wage system practised in the province is a complicated one from which it is difficult to arrive at piece work earnings which would be generally accepted as correct.

Broadly speaking, there were three critical periods in recent years during which wages fluctuated. During the latter part of the war, prices began to rise and wages, though always lagging behind, tended to follow suit. Following upon the failure of rains in 1918 and the havoc wrought by the influenza epidemic of 1918-19 (which took a toll of 2·8 million lives in this province) wages rose sharply. The two or three years after the termination of the war saw an industrial boom, which pushed wages up to a time when the boom itself was subsiding.

Since 1922-23 the general wage level has been comparatively stationary with a slight tendency to decline. Between 1929 and 1935 there has been a marked reduction in wages. During the depression period there has been a fall in wage rates varying between 30 to 40 per cent.

A comparison of the wage indices and the cost of living indices during the last two decades, with the quinquennium immediately preceding the Great War as the base period, reveals that in 1920 when the weighted cost of living index rose by 102 p.c. the maximum rise in wages was limited to 57 p.c. In certain cases it was as low as 34 p.c. only. In 1921 the cost of living index was 205 though in the succeeding five years it came down to 192, 165, 163, 176 and 179. Between 1927 and 1929 it rose again to 197. In all these years the wages indices were much below the cost of living indices. During the six years of depression (1929—1935) the cost of living indices fell by 13·7, 27·4, 27·4, 31·0, 34·0 and 28·4 per cent respectively when compared to 1929. The wages during this period fell by about 40 p.c. The difference between cost of living indices and wages indices was further widened.

During all this period the number of labourers employed in these factories has been increasing. The following table shows the number of labourers employed by all factories at Cawnpore from 1911 to 1934:

Year.	Number of labourers employed.	Year.	Number of labourers employed.
1911 . .	17,256	1923 . .	28,800
1912 . .	19,486	1924 . .	30,065
1913 . .	..	1925 . .	29,625
1914 . .	22,486	1926 . .	30,712
1915 . .	24,745	1927 . .	32,617
1916 . .	27,072	1928 . .	32,274
1917 . .	28,334	1929 . .	32,030
1918 . .	28,413	1930 . .	33,727
1919 . .	27,913	1931 . .	34,430
1920 . .	26,919	1932 . .	35,143
1921 . .	27,121	1933 . .	37,808
1922 . .	28,301	1934 . .	41,346

These figures show an increased employment of labour but this increased number, immediately after the war boom, may be due to reduced working hours per day. The Indian Factories Amendment Act of 1922 reduced the maximum working hours to 60 a week when compared to 12 hours per day between 1911 and 1921. The number of labourers employed in 1922 and

subsequent years should therefore be reduced by $1/6$ (16·6 p.c.) to make the data uniform for comparison with previous years. The following table shows the number of labourers necessary if the working hours were 12 per day instead of 10:

Year.	Number of men employed as per Factory Inspector's Report. Under 10 hours per day work.		Number of men that would have been employed under 12 hours a day work.
1922 . .	28,301		23,584
1923 . .	28,800		24,000
1924 . .	30,065		25,054
1925 . .	29,625		24,688
1926 . .	30,712		25,093
1927 . .	32,617		27,181
1928 . .	32,274		26,895
1929 . .	32,030		26,692
1930 . .	33,727		28,106
1931 . .	34,430		28,692
1932 . .	35,143		29,286
1933 . .	37,808		31,507
1934 . .	41,346		34,455

In 1926, yet another amendment was made in the Indian Factory Act to widen the definition of "Factories" so as to bring within the control of the Act such establishments as Electrical Generating Stations, Water Works etc. In the subsequent year the total number of factories according to the new definition increased from 49 to 65. It is actually the number of labourers that counts and not the number of factories. In 1934 there were 34 Textile and Leather factories and 37 other factories but of the total number of labourers employed by all factories (as defined by the Indian Factories Act of 1926) 88·3 per cent were engaged in the Textile and Leather factories which have been considered in the present inquiry. The remaining 11·7 per cent were working in 37 factories of whom Electrical Generating Stations and Water Works etc. employed but a few score of labourers. The new definition of the Factory, therefore, would not affect our conclusions.

We now compare the increase in the number of labourers. When compared to the war period, the number of labourers was reduced to some extent for four or five succeeding years. In 1927, the number of labourers rose again to the old figure in the war period. After 1929—throughout the depression period—the number of labourers employed by the mills has been increasing. In 1930, 1931, 1932, 1933 and 1934 the percentage increases over 1929 have been 5, 7, 9·7, 18 and 29 respectively.

The percentage would be higher still if compared to the years immediately preceding or following the Great War.

The demand for workers has been steadily growing, but the supply of labour has overgrown this increased demand. Three tendencies are now marked among the Cawnpore labourers, namely, (a) a permanent labour force, (b) an increasing number of floating unemployed labour and as a result of this tendency (c) a gradual reduction in industrial wages irrespective of the cost of living. Lower and lower wages, which have no relation to living costs, have forced upon the workers a poor standard of living and comforts.

An examination of the items of normal monthly expenditure of working class families at Cawnpore shows a lucid but lurid picture of the standard of living of the labouring classes.

The standard of living for any group of people is roughly measured by the sum of accustomed goods and services which they consider absolutely essential to their maintenance. In a very poor community it includes only the barest necessities of physical maintenance while in a very rich country it may comprise a variety of luxuries and cultural goods and services. The bare minimum of living conditions include food, clothing, housing, furniture and chattels, education and a few conventional needs. Religion, region, caste and income influence the standard of living but of all these factors income is the most important determining factor. In our inquiry into the cost of living index number, all labourers were grouped under four classes according to income grades, namely, below Rs. 15, between Rs. 15 and Rs. 30, Rs. 30 and Rs. 40, and Rs. 40 and Rs. 50. On a basis of random sampling the percentage of labourers in each grade was 17.6, 52.1, 19.9 and 10.4. It is evident that 69.7 per cent labourers earn below Rs. 30 a month.

A casual glance at the monthly budgets of the workers shows that about 48.2 p.c. of their income is absorbed by food only. Clothing, light and fuel and house rent account for 7.6, 6.2, and 8.97 p.c. respectively. The rest 29.13 p.c. is spent on miscellaneous items, chief among which are the repayment of debt, interest on debt, remittances home (if any), medicines and conventional needs. In all these budgets expenses in cultural needs are conspicuous by their total absence; expenditure on education is mostly non-existent and in some cases very low and disappointing.

We now proceed to a detailed examination of the nature of expenditure under each head and the degree of comfort enjoyed therein.

House rent.

Cawnpore is a congested city and house rents are comparatively high. The expenditure of rupees two or three per month on house rent apparently means a very poor housing. The house of a labourer in some Basti or Hata at Cawnpore is not worth its name and it would be proper to call it a den or more liberally a hut. Two or three dark dingy rooms, hardly six feet high and 8 ft. by 8 ft. in length and breadth accommodate one to four families. Not only are the houses old, decrepit and in many cases almost unfit for habitation but they are cramped in narrow streets and yards. Small mud huts with one room at the back and one room or verandah in front is the usual type of accommodation available. The only outlet for light and ventilation is the main door. There is hardly enough sleeping accommodation in these huts and to enable a worker to stand erect within his house, the ground floor is lowered than the road level by about 2 to 3 ft. The main outlet is more of a window than a door. The workers enter their houses with their knees bent. These houses are mostly damp. Even these poor huts cannot be had by workers singly and these quarters are often sub-divided between two, three or four families and as many as ten persons may be found in one of these huts.

In some cases father and son, both leading a married life, were living in the same room. The only means of separation being a cloth which hangs across the room. A bad odour permeates the whole place due to dirt, stinking drains and filth. The condition after the rains is even worse.

Conditions in mill settlements and the Improvement Trust quarters are better but so far hardly 20 p.c. of the workers have been provided in mill settlements and Trust quarters.

Clothing.

A worker's dress consists of a *dhoti*, a *bandi* and a cap. A pair of socks and shoes are considered as items of comfort. In winter a *mirzai* or a cotton *chadra* is used against the biting wind and cold. Very few ever use a woollen coat or a blanket. Females use *dhotis* and short shirts. In summer quite a large number of men go to the workshops without any shirt or even *bandi*. At night labourers protect themselves against the cold by burning splinters, dry leaves or waste paper and use only coarse *chadras* in place of blankets. Better paid workers use *chadras* made of mixed wool and cotton. It is a very small percentage of mill hands who can afford to use blankets or *razais*.

Clothes on their bodies are so dirty that one can safely say

that they have never gone to a washerman and it is literally true in most of the cases. Such dirtiness is due firstly to their negligence and secondly to the paucity of clothes to wear during the short period for which the clothes are given for a wash. Sometimes clothes become so old and ragged that one can notice as many as fifteen or twenty patches in a shirt and they become useless for protection against cold. An expenditure of 7.6 p.c. of their income which averages between Rs. 2 to Rs. 2-8-0 a month cannot provide them with better clothing.

Furniture and Chattels.

Expenditure on furniture and chattels is governed less by the economic status of a family than by the social position of the community to which it belongs. Social status and caste prejudices are great factors in determining the nature of expenditure under this head. Hindus, especially those belonging to the upper castes, will always use cooking utensils made of brass and other metals while Mohammadans generally use earthen pots. A Christian mostly uses aluminium and China clay pots. But economic factors also play their part in regulating the expenditure under this head; two upper class Hindu families belonging to high and low income classes will show some difference in their expenditure on furniture and chattels. The family belonging to the low income class may satisfy itself with one or two cooking utensils of inferior quality while the other belonging to the high income class may have utensils of superior quality. Again the poorer workers have only one or two cots made of bamboos and munj and they supplement them by the use of mats and gunny bags. Workers belonging to higher income grades have one cot for each member of the family. Stools made of wood and straw are also used for sitting. There is no expenditure in working class families on gas and electricity, workers mostly use earthen lamps and burn mustard or castor oil which gives a dim and flickering light in their small dark huts. Middle class workers use tin lamps, or even lanterns in rare cases, and burn kerosine oil instead of mustard or castor oil. The percentage expenditure on the group—fuel and lighting—decreases as the income rises, but is not subject to any great difference between the various income classes. A chair or a table is rarely seen with a working class family.

Food.

Though about half the income of the worker is spent on food, the quality of the food is mostly inferior and insufficient. The cheapest variety of grains are purchased by them.

Table showing quantities of principal articles of food consumed per family in a month by various grades of Carnpore labourers.

No. of men in each group.	GROUP I.			GROUP II.			GROUP III.			GROUP IV.										
	Below Rs. 15.			Between Rs. 15 & Rs. 30.			Between Rs. 30 & Rs. 40.			Between Rs. 40 & Rs. 50.										
	128			380			145			76										
Name of food.	Product of weight and quantity.		Sr. Ch.	Product of weight and quantity.		Sr. Ch.	Product of weight and quantity.		Sr. Ch.	Product of weight and quantity.		Sr. Ch.	Product of weight and quantity.		Sr. Ch.	Total of columns 1, 3, 5 & 7. all groups.				
	Quantity.	Sr. Ch.		Quantity.	Sr. Ch.		Quantity.	Sr. Ch.		Quantity.	Sr. Ch.		Quantity.	Sr. Ch.		Quantity.	Sr. Ch.	Quantity.	Sr. Ch.	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)										
Rice . . .	4	5	552	0	7	13	2968	12	11	4	1631	4	12	12	969	0	6121	0	8	6
Wheat . . .	25	0	3200	0	33	10	12777	8	48	5	7095	5	64	6	4892	8	27805	5	38	2
Bajra . . .	8	14	1136	0	19	10	7457	8	22	7	3253	7	12	9	954	12	12801	11	17	9
Gram . . .	0	15	120	0	0	10	237	8	1	14	209	6	2	2	161	8	728	6	1	0
Arhar . . .	0	7	56	0	3	14	1472	8	5	5	770	5	7	2	541	8	2840	5	3	14
Urd . . .	0	2	16	0	0	11	261	4	1	6	199	6	1	9	118	12	595	6	0	13
Other pulses . . .	1	1	136	0	1	15	736	4	2	12	398	12	2	3	166	4	1437	4	2	0
Milk . . .	0	6	48	0	1	2	427	8	2	15	425	15	6	12	513	0	1414	7	1	15
Ghee . . .	0	2	16	0	0	6	142	8	0	12	108	12	1	8	114	0	381	4	0	8
Salt . . .	0	15	120	0	1	1	403	12	1	5	190	5	1	6	104	8	818	9	1	2
Mustard oil . . .	0	11	88	0	0	15	356	4	1	4	181	4	1	8	114	0	739	3	1	0

This table shows the average quantity of food consumed by all groups of the labourers in a month. We shall now compare the consumption per head per day with the jail diet in these provinces.

The average number of persons per family, living with the family, in different grades is given below :

	Families in the group.	Men.	Women.	Children.
Group I below Rs. 15 .	128	1'03	0'56	0'59
Group II between Rs. 15 and Rs. 30 . . .	380	1'23	0'70	1'14
Group III between Rs. 30 and Rs. 40 . . .	145	1'53	1'40	1'60
Group IV between Rs. 40 and Rs. 50 . . .	76	1'72	1'54	1'83

For the sake of calculation two children have been equated to one man. The weighted average number of family members for all groups will be :

$$\text{Men} = (1'03 \times 128) + (1'23 \times 380) + (1'53 \times 145) + (1'72 \times 76) \div 729$$

$$\text{Women} = (.56 \times 128) + (.70 \times 380) + (1'4 \times 145) + (1'54 \times 76) \div 729$$

$$\text{Children} = \frac{1}{2} \{ (.59 \times 128) + (1'14 \times 380) + (1'6 \times 145) + (1'83 \times 76) \div 729 \}$$

$$\text{Average} = 2'8.$$

Following table shows daily per head consumption of food and the increase and decrease over U. P. jail diet :—

	Daily food consumption per family. Ch.	Daily food consumption per head. Ch.	U. P. Jail diet.* Ch.	Increase or decrease over jail diet. Ch.
Rice . . .	4'46	1'6	..	+1'6
Wheat . . .	20'33	7'3	11	+3'7
Bajra . . .	9'7	3'5	..	+3'5
Barley . . .	..	..	3	-3'5
Gram . . .	5'3	1'9	..	+1'9
Arhar (dal) . .	2'06	7'4	1	-2'6
Urd . . .	4'3	1'5	..	+1'5
Other pulses . .	1'06	4	..	+4
TOTAL . . .	..	13'88	15'0	-1'12
Milk . . .	1'03	4	..	+4
Ghee . . .	2'6	9	..	+9
Salt . . .	6	2	27	-21
Mustard oil . .	53	19	16	+37

* Alternative cereal combination is rice 10½ Ch., pulses 8½ Ch.

Two general conclusions can be drawn from this table, namely, (a) that the average quantity of food consumed by the labourers is less than the jail diet by 1·12 chs. and (b) that the diet of the labourers is inferior to the diet of a prisoner. The prisoner gets 11 chs. of wheat, 3 chs. of barley and 1 ch. of dal while the labourers eat 7·3 chs. of wheat, 3·5 chs. of Bajra, 19 ch. of gram, 1·6 ch. of rice and 1·29 ch. of dal.

The quantities of vegetables, meat and fish have not been considered in the foregoing table. It is difficult to gather from the labourers the quantities of these articles because they consume these articles only now and then though in a jail diet 3 chs. of vegetables are given every day in addition to the diet mentioned above.

THE NEW DEAL IN AMERICA

BY

K. P. VISWANATHAN NAYAR, PALGHAT.

On March 4, 1933, Franklin Roosevelt assumed office, as President of the United States. He had to face problems, which, hitherto had been unheard of in social and economic sphere. The price-level showed a declining trend, while cost items were more or less rigid. The rigidity of the economic system brought embarrassment on the "Captains" of industry who, consequently aimed at minimising losses by reducing their sphere of activity. There was therefore an intensification of the unemployment problem. Worst of all, the banking system of America seemed to face the 'Nemesis,' for having indiscriminately financed the 'Wall Street Boom' in 1928. The foundations of American civilisation were subjected to a criticism more thoroughgoing than during any period since Rousseau burst upon an astonished eighteenth century. 13·5 million men unemployed, 30 million farmers mortgaged, the banking system facing utter ruin—not an easy problem for the President.

The President could not leave things alone. He had to fulfil the promises he had made during his Presidential campaign, and the people expected great things from him. Adam Smith's "invisible hand" seemed to be permanently superannuated. The economic system of the 19th century was so simple that alternations between booms and slumps were of little consequence, and therefore, they could be left to themselves. Moreover, new inventions lessened costs, while opening up of new areas provided markets for the expanding production. The simplicity of the economic organisation, "when Adam delved and Eve spun," has ceased to be an attribute of the twentieth century. In recent times the complexities of the industrial system, coupled with the development of new industrial nations, created conditions under which 'Laissez Faire' was as dead as mutton.¹ Planning! who would not plan? 'Either we should plan our civilisation or we should perish.'

It is in the perspective of these general conditions that the great American Experiment—the New Deal—must be set.

¹ Cf. G. D. H. Cole, 'Economic Tract for the Times.'

President Roosevelt's New Deal measures can be classified under three broad heads—Rescue, Recovery and Reform.² This classification is not scientific; for, the Rescue measures cannot be separated from the measures of Recovery; and Reform should proceed '*pari passu*,' with Rescue and Recovery. But for the purpose of analysis this classification is adequate.

Under 'Rescue' we can conveniently consider the following measures. The laws relating to gold-hoarding, devaluation, deposit guarantee, foreign exchange, prevention of foreclosure, repeal of the Anti-Trust laws, agricultural marketing, salary cuts, and the organisation of the Reconstruction Finance Corporation.

The 'Recovery' measures comprise the laws relating to currency reform, exports and imports, restriction schemes and the programme of public works.

Measures of 'Reform' are a novel feature of the American New Deal. The 'Blanket Code' and the organisation of labour for the purpose of collective bargaining are but the particulars of which the universal is a long series of reformatory measures, which have changed the nature of American social and economic activity, almost beyond recognition.³

The monetary programme consists of measures relating to gold, silver, and paper-money,⁴ and is in the nature of Rescue measures.

Gold.

The measures relating to gold exhibit five distinct phases.⁵ First, the bank holiday was announced on March, 6, 1933. On March 9, the President was given power, by the Emergency Banking Act to control gold exports; all private gold and gold certificates were to be surrendered to the Federal Reserve Banks before May 1st. Second, on April 19, the President refused to grant licenses for the export of gold. Many applications were turned down. Thus America went off the Gold Standard. There was no justification for this measure. The total gold reserve in the Federal Reserve Banks, when America went off gold, amounted to \$ 2700 million or 45·6 per cent. The bank-rate was as low as 3·5 per cent. The liability of the Federal Reserve System

² Cf. Sir Josiah Stamp's address before the Royal Institution, 1934.

³ For details see 'The Round Table,' March, 1935.

⁴ See "Gold, Banks and the New Deal" by N. Angell in the *Pol. Sc. Quarterly*, December, 1934.

⁵ See Dr. Gregory, "12 months of American Dollar policy," in *Economica*, November, 1934.

was relatively small. There was nothing to warrant America going off the Gold Standard. By going off the Gold Standard the U. S. intensified the severity of the world-slump; for its effect was deflationary inasmuch as distrust in off gold currencies resulted in an increased demand for 'liquidity.'⁶ Third, the Thomas Amendment to the Agricultural Adjustment Act gave the President power to devalue the Dollar up to 50 per cent of its gold contents. It further directed the Secretary of the Treasury to ask the Federal Reserve Banks to conduct 'Open Market Operations' and issue credit against \$ 3 milliard of federal bonds. It provided for the unlimited coinage of gold and silver at the ratio to be fixed by the President. The Thomas Amendment was purely inflationary in character. On June 5, the Gold clause was repealed, and the internal debt became payable in dollar instead of gold. Fourth, on September 12 a far-reaching and revolutionary measure was adopted. The newly mined gold was to be surrendered to the Secretary of the Treasury at the price fixed by him. Gold could not be held except under license. Sale of Gold abroad should be through the agency of the Treasury. On September 20, the treasury raised the price of gold by 20 per cent. The fear of inflation, which was the natural result of these measures, began to spread rapidly. The index of the farm products rose from 44·5 points in April, 1933 to 62·7 points in October. But this rise in price should be attributed partly to public works and the government purchase of farm products. Fifth, Roosevelt announced the Gold Purchase Plan on October 25, and a few days later it was extended to foreign countries also. It is difficult to find out the motive behind this plan. *Prima facie*, the accumulation of gold through the plan, when the U. S. is off gold can be of no use; for then, gold only a commodity—it is not money—, and as such it is as good as buying cotton or iron, or any other commodity. If the idea of the President was to raise commodity prices by dragging it after the raised price of gold, it had no practical effect, because, there was actually a fall in prices, when the price of gold was raised.

The inauguration of the gold purchase plan when dollar was off gold, was followed by the emergence of organised opposition. Woodin, secretary of the treasury, took leave but never returned to assume office again. Acheson followed suit. Dr. Sprague who resigned office in the Bank of England to assist the President, left office under loud protest, and predicted 'the

⁶ For a discussion of this see Prof. L. Robbin's remarkable book, "The Great Depression."

complete break-down of the credit system.' Professor Kemmerer who is vehement critic of the inflationary measures urged for return to gold. He had the support of the Warburg-Sprague arguments. Nevertheless, the President had the theoretical justification of his practical measures by a brilliant group of academical thinkers, like Prof. Irving Fisher, Rogers, and Morgenthau.

While opposition was becoming more and more organised, the President's main preoccupation was with gold. By the executive order of December 28, 1933, all the gold reserves were transferred from the Federal Reserve Banks to the vaults of the Treasury. A fund of \$ 2 milliard was to be constituted out of the profits of devaluation, to buy and sell foreign exchange, and government bonds so as to keep the credit system on an even keel. No gold was to be coined. The gold price was fixed at 59.06 cents. The wheel had come full swing. The United States was back again on *de facto* gold standard. The policy of raising prices by exchange depreciation came to an end. Wholesale prices rose by 26 per cent, when they ought to have risen by 70 per cent, considering the inflationary measures. Even this rise must partly have been the result of having raised costs under the N. R. A. and the A. A. A., the drought and public works. Dr. Kemmerer estimated that, while production in 1932 was only $\frac{3}{5}$ of the 1926 level, the volume of money in circulation in that year was $\frac{2}{5}$ more than that in 1926⁷. What is the essence of the position thus revealed? Inflation cannot cure business depression; 'You can take the horse to water, but you cannot make him drink.'

Silver.

The measures relating to silver are worthy of our consideration. Although in the U. S. silver is not so serious a problem as it is with the Indian Government, it is important in America as an economic problem with a political background. The value of the amount of silver annually mined in the U. S. is less than half the value of the pea-nut crop; but the seven States which produce silver have 14 Senators and therefore, silver has great political significance.

'The silver measures' have undergone four stages of development. First, the Thomas Amendment to the A. A. A. provided for the unlimited coinage of silver. The President was authorised to negotiate international agreements to increase

⁷ See his book on 'Money,' 1932.

the amount of silver currency. Second, the silver agreement at the world economic conference, 1933 (whereby the U. S. agreed to buy 24 Million ounces a year, for 4 years) was carried into effect by the inauguration of the silver purchase plan in December, 1933. Third, on June 6, 1934 the President authorised the treasury to buy one billion ounces of silver at 50 cents an ounce. Fourth, silver was nationalised in August, 1934. All silver privately held was to be sold to the Treasury at 50 cents an ounce. Paper dollar was to be issued against silver at \$ 1.29 an ounce. On the whole the effect of these measures on the price-level was small.

Paper money.

So far we were concerned with gold and silver measures as part of the monetary programme. It is now necessary to examine other monetary measures, chiefly relating to paper money. The displacement of gold by federal bonds as 'Cover' for note issue, which was started by President Hoover towards the fag-end of his regime, was intensified by Roosevelt's action under the Emergency Banking Act. Further, the Thomas Amendment authorised the issue of \$ 3 billion "greenbacks."

A serious criticism of Roosevelt's monetary measures would be that they are concerned with the general level of prices and not with "*particular prices*."

As Dr. Von Hayek passionately argues: "It is a mistake if we try to establish *direct* causal connexion between the *total* quantity of money, the general level of all prices, and perhaps, also the total amount of production. For, none of these magnitudes *as such* ever exerts an influence on the decisions of individuals It will never be possible to establish necessary connections between cause and effect, between averages as we can between individual phenomena. From the nature of economic theory averages can never form a link in its reasoning."⁸

Dr. Von Hayek's criticism knocks the bottom out of "the quantity theory of money;" and the American monetary measures assume the truth of this theory.

As the genius of Richard Cantillon pointed out in 1834, 'The great difficulty consists in discovering by what path and in what proportion the increase of money raises price of things.' The lack of adjustability between particular prices is the cause of the depression, and this deficiency cannot be made up by

⁸ Cf. Hayek's 'Prices & Production' (London), 1931.

increasing the quantity of money in circulation. Parity between 'sectional' prices is therefore, the most essential thing to avoid 'booms' and 'slumps.' Economic activity will be at the normal level when the price-level is equal to the sum of the average rate of the efficiency earnings of the factors of production and the average rate of profit." Roosevelt's monetary measures have not achieved this price-level.

Banking Measures.

The "RESCUE" measures extend beyond the monetary sphere. They have extended their tentacles to the field of banking also. The belief in the infallibility of the Federal Reserve Act of 1913 was shattered by the instability of credit since 1929, and the distress of the small banks, which was further intensified by the inability of the federal reserve system to cope with the agricultural depression. The uneconomic handling of the speculation resulted in an outflow of funds, especially after the crash of Krauger and TOLL & Co., and LEE, HIGGINSON & Co., when there was an utter failure of confidence. There was a run on banks. About 2800 banks seemed to be in hopeless condition. The Emergency Banking Act authorised the closure of such banks; their funds were to be used to prop up sound concerns. The RECONSTRUCTION FINANCE CORPORATION was started to help 'distressed' banks.

The Glass-Steagall Act, June 1933, separated for the first time investment from commercial banking. The powers of the Federal Reserve Board were enlarged. It was empowered to control all credit operations of the member-banks and conduct 'open market operations' on a very large scale.

The most important feature of the banking measures is the deposit insurance scheme. The capital of the Insurance Corporation consists of shares subscribed by the federation \$ 150 million, the Federal Reserve Banks \$ 135 million, while one-half of one per cent up to a maximum of \$ 200 million is the contribution of the other banks participating in the scheme. Deposits up to \$ 10,000 are cent per cent insured. Those between \$ 10,000 and \$ 50,000 are insured up to 75 per cent, while 50 per cent is the maximum payable for the deposits exceeding \$ 50,000.

The Insurance Corporation is authorised to have liabilities outstanding up to three times its capital. Its funds were to be

⁹ For a brilliant discussion of this confer the chapter on 'Saving and Investment' in Mr. Keynes' *Treatise on Money*, Volume I.

invested in federal bonds. When a bank fails the corporation could either liquidate it or merge it with another bank. In some cases it started a new national bank to assume the liabilities of the closed bank.

At the present time, private banking has a very limited scope in the U. S. The powers of the Federal Reserve Board are extended so as to develop state-wide branch banking. "The F.R.B. is the supreme court of finance." Moreover, the Treasury dominates the Board. Political pressure and motivation constitute a grave danger to sound banking in America.

We can now proceed to review the measures which are dominated by the spirit of 'Recovery' and 'Reform,' although they are not without a tinge of the motive of 'Rescue.' This is the field of agriculture and industry.¹⁰

Agriculture.

The A. A. A. of May 12, 1933 aims at the preservation of a proper "balance" between production and consumption. The Secretary of Agriculture is given power to (1) reduce the area under crop in lieu of benefit payments, (2) advance loans on stored goods, (3) initiate marketing agreements, (4) levy processing tax, (5) report prices and quantities of yield. This act affected chiefly cotton, tobacco, wheat, and maize. Minimum prices for farm products were fixed and contracts between producers and distributors were stimulated to give safety to the American farmer. The N. R. A. buys cotton, wheat and other primary products in places where the price of such commodities is too low to be remunerative. During the recent American drought a sum of \$ 100 million was allotted to the Farm Credit Administration to save the farmers from starvation. Thanks to these and various other measures the price-level of farm products rose from 55 points in February 1933, to 96 points in August, 1934.

Industry.

The National Industrial Recovery Act aims at recovery in the form of increased purchasing power through public works, while the N. R. A. provides a permanent programme for industrial control, although the Administration has, in general,

¹⁰ See Prof. Hoover's and Richardson's articles in the *Economic Journal*, 1934, and "The 1st phase of the N. R. A. by Arthur Burns, in the *Political Science Quarterly*, June, 1934.

refused direct control of output. But it has provision for such plans of control if necessary.¹¹

The scheme of public works in America is assuming gigantic proportions, as shown by the following figures. In 1933-34 \$ 3.3 billion were spent on public works, in 1934-35 \$ 5.3 billion, and for 1935-36 the President has schemes for building sea-aerodromes, government buildings, hydro-electric machinery etc., for which the estimate is \$ 4.6 billion.

There are serious limitations to the public works programme as the engine of economic recovery. For one thing huge sums cannot be pledged to offset 'fundamental forces.' For another, administrative errors would make recovery more remote than ever. Moreover, it is unsafe to gamble with public credit, for the increase of public debt would burden the budget beyond the ability of the nation to bear. Public works increase the fear of inflation, and therefore, have a deflationary effect due to the pursuit of 'liquidity.' Prices actually fall because people try to get rid of money. Public works retard private enterprise and make recovery, more uncertain. Again, public works constitute an indirect form of price-pegging and prevent price changes which are necessary for business recovery. Big programmes are as dangerous as they are unmanageable. If the scheme of public works raises prices, the production of consumer's goods will be unnecessarily stimulated, and the fundamental disequilibrium between 'Available' and 'Non-Available' goods will remain unaltered. Public works cannot be a cure for the depression; they can at best be only a palliative.

Control of Industry.

The President aims at the planned organisation of industry and trade for continuous production and exchange.

Codes of fair competition constitute "the Magna Carta" of the American labourer. Codes are either prescribed or approved by the President. They stipulate minima of hours of work and wages, as well as conditions of work. The 'BLUE EAGLE' is to be shown to the purchasers of industrial products, as a sign of conformity to the code. Thanks to the enthusiastic President the membership of the American Federation of labour has risen to 6 million. Although the employers refuse to recognise the trade unions, the friction between labour and capital is reduced because

¹¹ See Burns's articles in the *Political Science Quarterly*, June and September, 1934.

of the mediation of the State-Directors and Commissioners of Conciliation, and the National Labour Relations Board.

In each industry there is an industrial Relations Committee for the purpose of the avoidance of strikes. The N. R. A. has a flair for preventing the rise of irresponsible 'Captains' of 'industry.' A new Government of industry is struggling to be born in the womb of the old.

Nevertheless we can contend with Prof. L. Robbins. The N. R. Act raises cost and fosters monopoly. The A. A. A. restricts output and subsidises immobility. Unbalanced budgets and vast public works engender an inflationary boom.¹² The Recovery Administration must help the fullest use of the existing means of production, and should reduce the chance of future collapses of business.

The President's idea of restricting hours of labour to increase employment is futile because, reduced hours and more employment would mean the same amount of production and the same income for labour. If it means reduced hours and constant wages, costs would increase; business losses will increase and ultimately there will be more unemployment.

Restriction of crops in particular area is advocated for securing a 'proper balance.' This is a delusion, for, there is no 'proper balance' between one industry and another in the sense of a fixed ratio of prices. The fall of "agricultural prices" is due to the inelastic demand, and the relative increase in the supply due to the march of technological progress. "Restriction may raise prices, but it is seldom successful; and does so only by making the commodity dearer to the rest of the world. Further, restriction all round would mean general impoverishment."

The only true remedy is to change to some other industry for which the demand is elastic, and extend the market for agricultural products through a lowering of the tariff. For, "What a tangled web we weave, when first the tariff we conceive."

Rings and Pools formed in the name of 'conscious control' and 'orderly marketing,' under the powers given by the N. I. R. A., stand for restriction of production and raising of prices. Restriction should not be resorted to if capital in the restricted industry cannot be shifted to a more profitable industry. Restriction is advocated as an aid to the maintenance of capital value. This means scarcity to consumers, and stagnation to economic progress. Another aspect of restriction is that capital being not allowed to enter the "restricted industry" is made less

¹² See his 'Great Depression,' Chapter 7.

productive by being forced to seek investment in less profitable industries. Restrictionism has a general tendency to spread to all industries and ultimately complete state-control would become essential.

We are now in a position to examine retrospectively the conditions of permanent recovery in America. Recovery in America cannot come alone. It is bound up with recovery in the rest of the world. As Sir Henry Strakosch ably points out, recovery is the function of the return of business confidence.¹³ The main danger today is the monetary disturbance due to the 'New Deal.' The rise of prices must come from a return of business confidence, and not from monetary manipulation which is likely to destroy the basis of recovery. As for the 1926 price-level as the objective of the 'New Deal,' we should remember it was the inflationary boom of 1927—29 that caused the present difficulties. Therefore, to raise prices again to the pre-slump level would be to run the risk of a repetition of this disaster.¹⁴

In the light of these criticisms, the inflationary measures of Roosevelt would stand in the way of business recovery rather than help recovery in America. Therefore, stability is the basis of recovery.

"The basis of stabilisation should be, (1) monetary conditions in the different parts of the world should be conducive to international equilibrium; (2) monetary conditions in the world as a whole should be such as to avoid inflationary booms."

The 'New Deal' measures should aim at inter-bank understanding to fix the price of gold, and regulate the volume of credit by reference to fluctuations in their holdings. This is nothing but the much-maligned and misunderstood institution, the gold standard, run on strict lines of the gold standard theory. The gold standard is not 'fool-proof.' It should be 'managed.'

The 'New Deal' in so far as it aims at stabilising the general level of prices, defeats its own purpose. The condition of final recovery would be the restoration of the gold standard. This was what the President unostentatiously did, by the order of December, 28, 1933. The cost of the 'Recovery' and 'New Deal' measures would be no less a heavy millstone round the neck of the American Nation, than the cost of the world war, if those measures do not accomplish stability of exchange,

¹³ See *The Economist* Sp. Suppl. "The Road to Recovery" by Sir Henry Strakosch.

¹⁴ *The Great Depression*, Chapter 8.

a reduction of tariffs, and a regaining of the flexibility of business organisation, especially the labour market. The Rigidity of the wage-system tends to increase unemployment during the slump period. Inflexibility in the other markets should also disappear. There should be no state support to trusts, and no tariffs or bounties which foster monopolies, because such public help increases the rigidity of the economic system. The liberation of trade and investment to the domination of the market involves a denial of state functions. Is it 'anarchistic chaos'? 'But, the denial of the economic functions of the state is a pure red-herring.'

The cost of the Recovery, New Deal measures can be gauged from the following figures. The National debt before March 1933 was \$ 19,500,000,000. According to the estimate of the President, in 1936, it will be \$ 34,239,000,000. This is £ 200,000,000 less than the national debt of GREAT BRITAIN. We are too near the events to make an accurate estimate of the achievements of the RECOVERY ADMINISTRATION. The U. S. spent \$ 32 billion in 18 months during the war, for which there was no return. In the case of the "New Deal," it is a little less than half of it, that is to say, \$ 15 billion. Even so, it is a pertinent question to ask: Does this expenditure pay?

THE PROBLEM OF CONSOLIDATION OF HOLDINGS IN THE PUNJAB

BY

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Out of the eight and a half lakhs of rupees received by the Punjab Government for rural uplift works in the year 1935-36, Rs. 2,01,766 (nearly 24 per cent) have been earmarked for the consolidation of holdings. This shows the importance attached by the authorities to this particular aspect of rural problems requiring attention, as only one other item, that of "water-supply schemes," gets a higher allotment out of these funds.

It is generally recognised that holdings in the Punjab have, through many causes, so diminished in size that their ownership and cultivation have become uneconomic. The magnitude of the problem and the practical difficulties that face one in dealing with remedial measures, are not however so widely understood. In this article an attempt is made to show briefly what these difficulties are, and to what extent the evil of fragmentation of holdings can be overcome.

The area of the British Punjab is 99,200 square miles, or according to village papers 60,186,538 acres. Of the latter, 30,899,466 acres or 52 per cent are under cultivation. The latest figures available (1933-34) show 3,944,898 "jamabandi" holdings in the Province, while the owners and shareholders number 4,859,695. This gives an average of 1.2 persons per holding, which means that many of the holdings have more than one owner; in other words there is joint ownership of land in the Punjab. As will be shown later, this introduces certain complications, since the more persons there are having a voice in a matter, the more difficult will it be to arrive at any unanimity of opinion.

Before proceeding further, it is necessary to be clear what a "holding" means. This has been defined as "a share or portion of an estate held by one landowner or jointly by two or more landowners." In the village records (jamabandi) each field or number of fields that are held, or cultivated, under a

single title of right, is given a separate number. Thus, if a man owns, or cultivates, two pieces of land himself, and another two jointly with another, the four pieces will be given two separate numbers, under one of which his name appears alone, and under the other, with that of the partner. When we speak of a man's holding, therefore, it does not necessarily mean that he has sole right to all the lands in the holding; probably a portion of it will be under his sole right, and the rest will be the total of his shares in other holdings held in partnership with others. This point is important, since it would be misleading to speak of a person's holding as so many acres without bearing in mind the significance of its dispersed nature. If each owner in the Punjab held his land in sole right, the problem of consolidation would not be so difficult; it is the joint-ownership which leads to complexity, particularly when we remember that the owners may not be close relatives and may even belong to different castes or religions.

One of the purposes of consolidation is to bring as close together as possible the lands owned by a person so that cultivation on it may be in more compact blocks than before; and it is really consolidation of cultivation which is more important from an economic point of view so as to conserve time and labour and at the same time get a larger return for the effort and capital applied. It might be mentioned here that the cultivator usually does try to consolidate his cultivation, but the fragmented nature of his holding and the consequent difficulties largely neutralise the attempt.

We shall now examine some of the causes which led, and still lead, to fragmentation. The major cause is sub-division of holdings and perhaps all the other causes are to a large extent dependent on this which is due to the various laws of inheritance. These are based on the equality of the claims of the male heirs to a property, but they were framed at a time when land was sufficient and to spare, and are now sadly out of date. At no time in the known history of the Punjab was there such a pressure on cultivation as in these days when the Pax Britanica has brought settled conditions, canals, metalled roads, railways, medical facilities and other modern features of civilisation which have created a greater demand for food-stuffs and other farm produce from an ever-increasing population.

According to the laws of inheritance just mentioned, each son or heir to an holding must get an equal share of all the good and bad lands in it. Thus, if there are two plots of land, one good and one bad, and four sons, each son gets a quarter-share

in each of the two plots; and if the sons decide to separate and partition the holding, each plot is split up equally into four plots so that the holding increases from one to four and the plots from two to eight. Another variation of these laws is the division among the children according to the number of wives of the original owner. Thus if he had one son by one wife, and two by a second, the son of the former gets half-share, and the two sons of the latter a quarter each, which in their case makes the size of the plots smaller still. As regards inheritance by female heirs, wide variations in the laws exist, the shares ranging from nothing to an equal share with male heirs. These laws of inheritance are based on religious precepts and custom; they differ widely from caste to caste and from area to area, and a study of the Customary Laws of each District of the Punjab is needed to reveal their complexity.

Other causes are those dealing with the factors which class land as good or bad. The chief among these are (a) kinds of soil in the holding, (b) class of cultivation, and (c) situation of the plots. Soils are generally differentiated according to the proportion of clay and sand in them, and the presence or absence of alkaline substances, such as saltpetre. The best soil is loam which has just sufficient sand in it to prevent the clay particles from adhering together too closely; while the worst is that which has a superabundance of saltpetre which prevents any plant growth. There is a large variety in each kind of soil depending on the proportion of the different substances composing it. These varieties of soils are found in most villages, while canal-irrigation has at many places been responsible for the rise of the saltpetre to the surface thus putting perfectly good land out of cultivation. Each soil requires a different amount of moisture to give the best results. In places with little rainfall, or no canal or well-irrigation, soils requiring less moisture are in greater demand, while in irrigated lands softer lands are preferred as, on drying soils become very hard and put a great strain on the plough-cattle at the time of ploughing.

Very often, however, it is the means of irrigation available that classifies a land. The classes of cultivation in the Punjab are *nahri* (canal-irrigated), *chahi* (well-irrigated), *sailab* (subject to river floods) and *barani*, (*i.e.*, dependent for maturity of crops on rainfall); also *abi* and *jhalari* (forms of lift-irrigation). On some lands more than one means of artificial irrigation is available, and a combination of these changes the classification so that we have *chahi-nahri*, *chahi-sailab*, etc. According to the latest figures, the cultivated land in the Punjab

receives its irrigation as follows (five-years average ending June 15th, 1932:)—

	Acres.	Percentage.
Barani	14,201,356	46·7
Nahri	9,303,433	30·6
Sailab	1,702,880	5·6
Abi	120,968	0·4
Chahi, including combinations with above .	5,070,639	16·7
TOTAL .	30,399,276	100·0

Canal-irrigated land has a premium on it since it makes for more secure cultivation and there were 12,008 miles of canals in the Punjab in 1932. Next in preference comes well-irrigated land, particularly if the water-supply is good and the water sweet. Sinking of wells is encouraged by government by offering *taccavi* loans and granting of rebates in revenue: excluding abandoned well there were 365,003 wells in the Province in 1935. Sailab land, being near the river, is always in danger of being washed away or put out of cultivation by a layer of sand brought by floods.

Situation also affects the value of land. Areas near the village *abadi* have the advantage of proximity and are also naturally fertilised by the habits of the people; lands which are too high to receive irrigation from wells or canals, or low so as to be flooded after rains, are not popular. Often good, fertile plots at a distance are given out on lease while the owner takes on rent an inferior plot but nearer the village. Sometimes plots next to roads and much-frequented paths are not liked owing to the pilfering of crops by passing men and animals, while plots very far from a path do not find favour as it often means taking a cart over other people's land which may not always be possible.

Besides these causes of difference in the desirability of plots there may be other reasons, sentimental or otherwise: some plots may have come down as a gift received, or some relative may have been buried in one, or the plot may have been taken in foreclosing a mortgage; others may have been inherited as shares in other holdings. It will be noticed that in all the causes so far enumerated, the tendency is always towards getting plots which lie scattered all over the village estate; in other words to increasing the fragmentation of holdings.

We may now consider to what extent the evil of fragmentation is present in the Punjab, by examining certain data available in the publications of the Board of Economic Inquiry. One of the evils of the laws of inheritance has been in the tendency to reduce the size of proprietary holdings, and a natural consequence has been in the reduction in the size of cultivating holdings. Mr. Calvert estimated the size of holdings in the Province, and the percentage number of owners and cultivators in each group, to be as follows¹:—

GROUP.	PER CENT OF LAND.		PER CENT OF PEOPLE.	
	Owned.	Cultivated.	Owning.	Cultivating.
One acre and less	1'0	1'5	17'9	22'5
Over 1 acre and less than 5	11'0	12'1	40'4	33'3
5 acres and less than 10	15'1	20'6	18'0	20'5
10 15	11'5	17'4	8'2	10'2
TOTAL	37'6	50'1	66'6	64'0
15 acres and less than 20	8'4	12'3	4'3	5'3
20 25	6'8	9'1	2'7	3'1
25 50	20'4	18'5	4'8	4'2
50 over	25'7	7'9	3'3	0'7
TOTAL	61'3	47'8	15'1	13'3

It will be seen from this table that although one per cent of land is held in holdings of one acre and less, they are owned by nearly 18 per cent of owners. Taking holdings over one acre but less than fifteen acres, we find that they cover 37·6 per cent of

¹ "Size & Distribution of Agricultural Holdings in the Punjab," page 3; "Size & Distribution of Cultivators' Holding," pp. 14—17 (Board of Economic Inquiry, Publications Nos. 4 and 11, respectively): the percentages require slight adjustment to total 100 in each column.

the land and 66·6 per cent of the owners. In the case of cultivators, 22·5 per cent (*i.e.*, only a little less than a quarter) cultivate 1·5 per cent of land in holdings of an acre or less, while in the next three groups, 64 per cent of people cultivate over one acre to less than 15 acres (just one-third come in the "one to less than five" group), and such land forms 50·1 per cent of the cultivated land of the Province. In the larger groups though the land owned or cultivated is appreciable the people concerned are very few, a little more than one-tenth. This shows that the majority of the people in the Punjab own or cultivate small holdings.

We are not concerned here to know whether these holdings were always so small; probably they were, though not to the same extent as the above figures show. The Punjab has been called the land of small proprietors, and Mr. Calvert says: ". . . holdings seem to be small all over the East now and to have been small for ages past; there does not seem to be any evidence that at any time the holdings in the Punjab were much larger than they are to-day (larger that is to say in the sense of fifty acres and over) . . . So ingrained has the custom of small holdings become that even to-day with a demand for agricultural produce of many kinds and a ready sale in numerous markets, even where owners possess large holdings they rent it to petty cultivators."² In the early days with less pressure on land only the better and more fertile fields were cultivated. With recent changed conditions however these holdings are now no longer so economical to work as previously as the task is accentuated by fragmentation so that much time and energy is dissipated in cultivating scattered plots, with a consequent lowered yield.

The following table is based on seven Village Surveys published by the Board,³ and show the extent of fragmentation on proprietary holdings. Part A deals with five older Districts, viz., Amritsar, Jullundur,⁴ Rohtak, Ambala and Gurgaon; Part B with two canal colony villages in the Lyallpur and Gujranwala Districts, where village life has been recently started afresh under securer conditions. Plot in this table means a continuous piece of land capable of compact cultivation.

² "Wealth & Welfare of the Punjab," ed. 2, p. 8.

³ Publications Nos. 16, 17, 18, 27, 30, 31 and 43.

⁴ Figures relate to one *patti* of the village only.

Holdings of	No. OF HOLDINGS.		HOLDINGS.		PLOTS.	
	No.	Per cent.	Largest.	Smallest.	Largest.	Smallest.
A.—OLDER DISTRICTS—						
1 plot . . .	157	19'5	14'70	0'005*	14'70	0'005*
2 to 5 plots .	193	23'9	31'90	0'075*	16'90	0'005*
6 „ 10 „ .	109	13'5	46'96	0'625*	15'16	0'005*
11 „ 15 „ .	79	9'8	64'03	2'773*	17'38	0'010*
16 „ 25 „ .	125	15'5	79'20	2'828*	14'10	0'005*
26 „ 40 „ .	107	13'2	76'70	4'074*	12'10	0'005*
41 „ 60 „ .	33	4'1	34'83	6'693*	2'68	0'005*
61 plots and over . . .	4	0'5	83'59	28'120	5'63	0'020
TOTAL . .	807	100'0	..	..	..	..
B.—CANAL VILLAGES—						
1 plot . . .	40	67'8	50'8	6'8	50'8	6'80
2 to 5 plots .	9	15'2	56'4	12'8	33'9	1'00
6 „ 10 „ .	5	8'6	..	..	22'76	0'09
11 „ 15 „ .	4	6'8	..	..	30'77	0'24
16 „ 23 „ .	1	1'6	..	..	14'36	0'50
TOTAL . .	59	100'0	..	..	..	..

This table brings out clearly the extent of fragmentation in these villages, which were selected as more or less “typical” of the District in which they were situated. Leaving the two canal villages, in the others nearly 20 per cent of the holdings were in compact blocks and as such required no consolidation. Even so, the largest holding in the group was only about 15 acres. This was in the Gurgaon District where most of the land is *barani*, the rainfall most precarious and the holdings consequently large. The largest holdings in this group, in the Amritsar and Jullundur villages where the pressure on land is heavy, were only 0'10 acres and 0'213 acres, respectively; in the Ambala holding it was 1'35 acres and in Rohtak 1'53 acres.

In the next two groups, *i.e.*, from two to ten plots, there were 302 holdings or 37'4 per cent. If we take up to ten plots

* In Jullundur District, the figures for which are for one *patti* (section) of the village.

as a normal number in a holding under the conditions described—(and this would be a high figure if the plots were scattered very widely)—it leaves 348 holdings or 43·1 per cent, with more than ten plots each, on which consolidation is very necessary. The largest number of plots in one holding, mentioned in the Village Surveys is 104; this was in the Ambala village and had an area of 83·59 acres, the largest plot was 5·63 acres and the smallest 0·02 acres. Another point which may be noted is that the largest plots are in holdings which have a fewer number of plots in them.

As regards the two canal villages, fragmentation is not extensive, the majority of the holdings being in compact blocks. These villages were settled about the beginning of the present century and the figures relate to 1927-28. The population has increased, and one of the holdings in the Gujranwala village was already in 23 plots, but the largest number of plots in one holding in the Lyallpur village was four.

It has already been mentioned that the cultivator tries as far as possible to consolidate his cultivation, giving out the inconveniently placed, or inferior, plots on lease and taking in their place other more convenient plots on rent. The following table, based on the same Surveys, shows the comparative position:—

Cultivating holdings of—	Number.	Percentage.
A.—OLDER DISTRICTS—		
1 plot	136	22'8
2 to 5 plots	148	24'8
6 „ 10 „	95	15'9
11 „ 15 „	78	13'1
16 „ 25 „	69	11'5
26 „ 40 „	47	7'9
41 „ 60 „	22	3'7
61 plots and over	2	0'3
TOTAL	597	100'0
B.—CANAL VILLAGES—		
1 plot	234	71'1
2 to 5 plots	84	25'5
6 „ 10 „	11	3'4
TOTAL	329	100'0

Thus in the older districts 22·8 per cent of the cultivating holdings were in single plots against 19·5 per cent among the proprietary holdings; in the next two groups the percentages are 40·7 for cultivating, against 37·4 for proprietary holdings. It will be seen in the above table that the number of holdings goes down steadily as the plots increase, showing that it does not pay to cultivate in too many fragments. At the same time, although the cultivating holdings present a better state of affairs, it is by no means satisfactory, and could be considerably improved with better conditions of ownership.

We shall now discuss some of the practical disadvantages of fragmentation. The following quotation, taken from the Bhadas Village Survey (Gurgaon District), states a number of them:—

“ Most of the holdings are in a number of fragments of all sizes and shapes, scattered all over the village estate. Much time is therefore naturally lost in moving from one plot to another, particularly at the time of sowing, watering, weeding and harvesting. When operations are urgent, the cultivators have to employ labourers and often, when work on a plot finishes towards the close of the day, both the employer and employees feel reluctant to start on a new plot some distance away, though a full day's wages have to be paid. Proper protection by fencing is rendered difficult, as is also personal supervision, because unless the plot is large enough it does not pay to erect *machans* (platforms) to keep an eye on the standing crop. Further, if the family is small, the owner has to content himself with a morning and evening visit to his various fields leaving the rest to chance. Carriage of manure is easier and more economical if the land be in one block, and so it is usual to manure the plots which lie near the heaps. According to the *Wajib-ul-arz* (Statement of Rights) every villager is free to graze his cattle anywhere he chooses after the crops have been harvested, provided the owner of a particular field has first had the opportunity of grazing his own cattle on it at least once before the cattle of other people; but with scattered open fields it is difficult to prevent cattle from straying into prohibited plots, or from their damaging the crops as they are driven about from field to field. There is also the matter of mortgage

or cash rates. If a cultivator has two plots divided by that of another man, and he wants to consolidate his cultivation by taking on mortgage or rent the intervening plot, the second owner is in an advantageous position and therefore may charge a higher rate for the use of his land." (Page 51.)

As an illustration the investigator mentions a holding of 25 acres in nine widely scattered plots. It took the owner four hours to visit all the plots whereas the land could have been gone over in half an hour if it had been in one block. Ten men were employed for six days to harvest the rabi crop in 1927, whereas there would have been a saving of at least one man's wages daily if the land had been at one place. Further, if the neighbours became unfriendly it would require at least four labourers to look after the cattle while grazing to prevent them from encroaching on the fields under crops.

The difficulty of carriage of manure to, and carting the produce from, small scattered plots has already been mentioned. The cropping on such fragments has also to conform to that of neighbouring fields otherwise it might be found that when the harvest on it was ready the surrounding fields had already been prepared or sown for the next crop, and the owner would not be allowed the right of way over the fields unless they were not cultivated. Often a number of threshing floors may have to be prepared if there are too many fragments, and this entails more watchers, and later more labourers to carry the threshed crop home.

Watering also presents difficulties and channels disputes are all too common a fruitful source of litigation in the Punjab, as are also disputes concerning trees growing on the boundaries. Further a man may find his water-turn coinciding on more than one canal-outlet, and he may have to employ labourers, or else forego his turn on one outlet. The same is true of wells, since fragmentation in land has also led to complexities in shares in wells which are closely related to the area owned around them. In such cases if wells get out of order and need repairs, they are not promptly attended to since "what is everybody's business is nobody's business."

Much land is also wasted in boundaries; and because every cultivator likes to cultivate his land to its utmost limit, it very often means driving one of the yoke over another's land, and this often leads to unpleasantness. In the table on fragmentation of proprietary holdings it will be noticed that many of the smallest plots were 0.005 acres in size. It is mentioned in the

Surveys that sometimes the owners forget the very existence of small plots. In the Rohtak village two plots were found which were being cultivated 'free of revenue' while the fact was that they had been unwittingly absorbed by the owner of the neighbouring land, although the real owner continued to pay revenue on it unconsciously when making payment for his other lands. In some of the Surveys a study was made of the cultivation of the smallest plots in the village, and it was found that the majority of them had not been used since no one was prepared to cultivate them on lease, neither did the owner find it worth his while to do so; in some cases neighbours were allowed the free use of such plots.

Having dealt with the different factors affecting the problem, we shall now consider the remedial measures. So far consolidation work has been carried on by the Punjab Co-operative Department, which is recognised by the cultivators as avowedly working for their good, and its staff gets into close contact with their personal life; recently to expedite matter the Government have taken over three Districts to be consolidated through the revenue staff. To change age-long customs is always a delicate operation, and requires much tact and a fund of patience. According to the rules there should be no dissenting voice in any plan of consolidation, and often one recalcitrant person undoes the work of months. Such was the case in the Gujranwala village where "the general antagonism to all innovation and lack of enterprise has prevented the cultivators from enjoying the fruits of consolidation of holdings, although fragmentation of holdings, both proprietary and cultivating, is bad. A deadly lethargy exists even though the village is situated near a town and one or two people have seen the world outside the village." (Page xv.)

An attempt to consolidate the Jullundur village in 1922-23 met with only partial success. "Those who agreed voluntarily are now blessing the Government; they realise the benefits that even a scheme of partial consolidation may confer. S., etc., sons of M., have built sheds and houses so that they may stay more or less permanently on their partially consolidated farm. Their land presents a rich appearance of thriving crops where nothing is said to have grown previously. They have more time than before to promote the fertility of the soil, and state that injury to crops on the consolidated area from theft is no longer a serious trouble. Consolidation is now being demanded and it is suggested that compulsion should be resorted to in the case of those conservative zemindars who will not give their consent voluntarily." (Page 65.)

Consolidation is effected by the Punjab Co-operative Department by the formation of Consolidation of Holdings Societies⁵ in the villages where the work is to be started; a good deal of propaganda work is necessary before such societies are formed. The following table shows details of the work done by the Department in recent years (1929—34):—

	1929	1930	1931	1932	1933	1934
New societies	115	113	142	119	101	99
Societies cancelled*	3	4	4	15	5	13
Acreage consolidated	48,709	50,105	72,821	60,348	62,062	56,148
No. of blocks of land—						
(a) before consolidation	87,942	97,645	117,982	102,059	91,545	95,689
(b) after	14,667	16,760	21,627	17,412	15,432	16,529
Average size of blocks increased—						
(a) from (acres)	0'55	0'51	0'61	0'58	0'67	..
(b) to (..)	3'3	2'91	3'3	3'5	4'02	..
No. of owners concerned	7,630	7,651	12,512	10,512	9,284	9,838
No. of villages in which work was proceeding	204	1'94	208	186	162	148

* Because the members refused to exchange possession.

It will be seen from this table that 689 societies were formed in the six years, and 44 had to be cancelled because the members refused to exchange possession. The area consolidated comprised 350,193 acres; the blocks were reduced from 592,862 to 102,427, i.e., a decrease of 83 per cent. over the previous figure. The number of owners concerned was 57,677, while in 1934 the work was being done in 148 villages.

Examples of the practical benefits accruing from consolidation are given in the Annual Reports of the Co-operative Department; also the nature of some of the obstacles surmounted.⁶ The two commonest effects of consolidation are the sinking of wells and bringing of waste land under cultivation. In one year

⁵ Known in the vernacular as "Anjuman Imdad Bahmi Ishtimal 'Arazi'."

⁶ The description which follows are based on 5 recent Reports of the Co-operative Department.

93 new wells were sunk in the Province and 5,206 acres of land were brought under cultivation, of which 3,193 acres also received irrigation for the first time. In Jullundur District in the same year a village set aside half an acre for school and another reserved two acres for a play-ground, four acres for grazing and $2\frac{1}{2}$ acres for manure pits.

The advantages to landlords by consolidation are in the straightening of boundaries, the provision of regular-shaped fields, and improvement in communication. In three districts in one year new village roads of a total length of over 143 miles were provided giving simple access to each holding. In Gurdaspur the owners of a village redeemed 37 acres of mortgaged land by selling their property in the town, and were able to build houses on their consolidated holdings. In another village the landlords were able to demand from tenants on share-rents, one-half of the produce instead of one-third received previously when their holdings were fragmented. Consolidation was also the means of putting in order the lands in ten villages belonging to a rich and influential (but quarrelsome) family of Chaudhris. The area consolidated (4,173 acres) was reduced from 1,099 blocks to 58. The villages were spread over an area nine miles in diameter and each owner had holdings in every section. After consolidation each owner had a separate "village" with a separate water channel. One of them had his 835 acres scattered in 194 blocks over ten villages, but after the consolidation work was finished he had his land in a single block in one village.

When consolidation has been effected its results cannot but be appreciated. In a village in Gurgaon, where the love of song and ease is great, the women were so pleased at no longer having to wander from field to field with the midday meal in search of their husbands that they composed songs in praise of consolidation and dignified the Sub-Inspector who had done the work with the title of Autar (Incarnation).

The following table shows how conditions usually improve after consolidation. The figures relate to a village recently surveyed by the Punjab Board of Economic Inquiry in the Ferozepore District, where consolidation had been effected on part of the village estate. The area consolidated was 1,200 acres involving 88 proprietary holdings. Before consolidation these holdings had plots ranging from one to twenty-six but after consolidation, 74 of the holdings were in one to three plots, 5 holdings had four plots each, and the remaining three had five, six and seven plots respectively.

Holdings with		BEFORE CONSOLIDATION.				AFTER CONSOLIDATION.			
		No. of hold- ings.	Average area of holding.	Holding.		No. of hold- ings.	Average area of holding.	Holding.	
				Largest.	Smallest.			Largest.	Smallest.
			Acres.	Acres.	Acres.		Acres.	Acres.	Acres.
One	plot	18	2'218	8'197	0'103	38	6'333	59'642	0'103
Two	plots	8	7'215	18'766	0'751	24	12'935	35'693	2'856
Three	"	7	5'356	11'792	2'341	12	19'261	44'089	4'788
Four	"	7	4'690	8'348	2'482	5	43'187	152'520	11'837
Five	"	4	7'157	13'606	4'135	1	80'664	80'664	80'664
Six	"	10	13'857	32'809	4'082	1	91'386	91'386	91'386
Seven	"	7	16'181	32'628	8'564	1	31'603	31'603	31'603
Eight	"	3	10'850	14'382	9'031	1			
Nine	"	2	17'927	29'204	6'647				
Ten	"	1	24'059	24'059	24'059				
Eleven	"	1	12'312	12'312	12'312				
Twelve	"	4	27'370	43'742	11'850				
Thirteen	"	2	106'193	152'754	59'037				
Fourteen	"	2	52'517	79'468	28'569		No holdings.		
Fifteen	"	1	18'017	18'017	18'017				
Sixteen	"	2	20'577	27'694	13'460				
Seventeen	"	1	35'693	35'693	35'693				
Nineteen	"	1	30'666	30'666	30'666				
Twenty-six	"	1	91'391	91'391	91'391				

It is but natural to expect the difficulties, when dealing with rural communities, to be great where the people are conservative, illiterate and badly indebted, and in consolidation work there is the usual tale of villages abandoned after months of work when success seemed almost assured. In some cases the civil courts are brought in to upset arrangements previously made with consent; childless owners lacking affection for their reversioners, and vested interests, put up all sorts of obstacles; the *patwari* does not escape blame; co-sharers deliberately abstain from signing the society's pledge on the plea that it is not a registered document. But perhaps the greatest hindrances are from personal pique, and the absence of mutual confidence and the presence of jealousy. The human factor looms large in work of this kind; as one of the Assistant Registrars of the Department remarked: "Suspicion and jealousy are the two most dangerous white ants that eat at the root of all co-operative work in this

unhappy land." Despite all this, however, the work goes steadily on.

A word may be added regarding the cost of consolidation to the farmer. In most districts a small charge is levied, 8 annas per acre, or from Re. 1 to Rs. 8 according to the land revenue paid on the area offered for consolidation. This is to the good since the charge, little as it is, makes the cultivator take a more personal interest in the schemes designed for his own benefit. To achieve the uplift of the masses living in the 35,000 villages of the Punjab, no external assistance can effect much permanent result unless the incentive comes from the people themselves and the will to progress, lying dormant for so long, is awakened. This can only be possible with such education of the man behind the plough as will teach him the tenets of self-help and co-operation; and in this the intelligentia of the Province can render great help provided they study the problems closely and without bias before putting forward any scheme or criticising those already being pursued.

THE THEORY OF COMPARATIVE ADVANTAGE

BY

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A

The theory of Comparative Advantage is the foundation of the Classical theory of International Trade. If we accept the theory, it is supposed, we must also accept that any interference with the free course of international trade is bound to be detrimental to the trading countries. In stating the theory of comparative advantages, variations in productivity with the change in the volume of production are neglected, or introduced at the most, as unwelcome guests only to be dispensed with later on with the remark that they should lie low without assuming airs. The building up of the whole structure of the theory of international trade with all its implications to the disregard of varying returns has resulted in wrong inferences and dangerous generalisations.

It is supposed that the Theory of Protection is more or less based on political or social considerations than on economic ones. "There is no difficulty," observes Hodgson, "in coming to a decision that must be reached is implicit in all that has been said; the difficulty lies in the fact that arrangements for protection appeal in the last resort to other than economic criteria."¹ This lack of an economic foundation is due to the fact that the Classical theory takes a static view of things, and the forces that cause disturbance to the conditions of equilibrium are introduced later on with the invariable conclusion that these forces always generate reactions which will restore the equilibrium in due course. Taking a static view of things at every cross section of time, it can be easily shown that, as things stand, it is best for the exchanging countries to allow the free exchange of goods as operated by comparative advantage. But if we take a dynamic view of things, it is, under certain circumstances, prejudicial to the interests of certain countries. A predominantly agricultural country stands to lose if she is

¹ Hodgson : *An Introduction to International Trade and Tariffs*, p. 101 (1932).

made to give up a certain line of industry because of the superior efficiency of another country in that particular line. If the industry is one where increasing returns prevail and where the productivity is greater than in the field of agriculture (as is natural in the case of manufactures), it is harmful that it should be allowed to be crushed and displaced by agricultural activities which are by nature less productive (*i.e.*, productive of values under the existing price structure). It is why we find that in the recommendations made by the Fiscal Commission, one of the conditions laid down for granting protection is that the industry should be one of increasing returns. It is tacitly assumed that protection should be given only to industries which come under increasing returns. This is the 'infant industries' argument. But, why an infant industry should be nurtured with such care and effort, when a country can provide herself with the required commodities with less effort by means of exchange under the operation of comparative advantage, is not always made clear. A vague reply is given that it will ultimately lead to greater productivity. The displacement of an industry whose productivity is greater than the average productivity of the country by one whose productivity is below the average brought about by the free play of comparative advantage working itself out to its logical conclusion, is harmful.

B

In the above section, a free use has been made of the terms 'productivity' and 'average productivity' of industries and agriculture. The exact significance of these terms has to be clearly understood, for it is the productive capacity of a nation that really contributes to economic welfare. The economic welfare of the people depends upon the size of the National Dividend and the way in which it is distributed among the people.² Any cause which reduces the size of the national dividend adversely affects the economic welfare of the people, other things remaining the same. The national dividend is made up of 'Net Incomes' or 'Net Products' of various concerns either individual or collective. Professor Pigou has made an exhaustive and analytical study of the above points and it is not necessary to go into those details here. But it serves a useful purpose to quote his definition of 'net product or output' of an industry, for it is the degree of this net productivity of an industry that is essential from the standpoint of national production.

² Pigou : *The Economics of Welfare*, Part I, Chapters VII & VIII.

"This figure (net output) expresses completely and without duplication the total amount by which the value (at works) of the products of the industry of the group, taken as a whole exceeded the value (at works) of the materials purchased from outside, i.e., it represents the value added to the materials in the course of manufacture. This sum constitutes for any industry the fund from which wages, salaries, rent, royalties, rates, taxes, depreciation and all other similar charges have to be defrayed as well as profits. "Of course depreciation has also to be deducted before the net product can be arrived at. The calculation is not so simple, if competitive conditions do not prevail. If protective duties are imposed, the values of protected goods are enhanced and hence correction has to be made in the evaluation of net productivity of various industries on that account.³ I do not propose to go into the technical details of the problem of evaluation. If the results of such an estimate in some countries are examined, it will be found that under the existing conditions of relative values, and their probable course, the net productivity in manufactures is generally higher than that in agriculture.⁴ Hence any displacement of an industry whose productivity is higher than the average productivity of the country by one whose productivity is lower argues Manoilescu is always prejudicial to the economic welfare of the country. As such, he maintains that state interference is necessary to stay the process of such displacement by protection or otherwise.* Unregulated international trade will bring about such displacement and cause the country's industrial organisation to be lop-sided and of a low order of productivity where wages and profits would be low though rents may rise.

In a previous article on "Wages and International Trade" Taussig's proposition as regards the possibility of wages being

³ The Indian Chamber of Commerce, Calcutta in their written memorandum to the Government of India criticising the views of the Finance Member on industrialisation by a protective policy quote statistics regarding wages, salaries, railway freight charges, taxes, profits etc., paid by the several industries. The wage bill of the Textile mills amounts to about 20 crores; the Tata Iron and Steel & Co. and other ancillary enterprises disburse about 8 or 9 crores per annum, according to their estimate. The relevancy of these data depends upon the fact that all these items enter into the net product realised by the several industries, which forms the basis of all sub payments which enter into the stream of National Dividend. The idea of net product, therefore shifts the emphasis from individual profit to social income or to put it in more technical terms from individual net product to social net product.

⁴ *The Theory of Protection*, by Manoilescu (1932).

* Pigou : *Economics of Welfare*, p. 38.

higher than, or at least as high as, those in England under the existing relationship is contested.⁵ Taussig depends, perhaps, for such a situation to arise out of a shift in the relative intensities of demand in favour of India. But Ohlin differs from his view. "If we consider the whole of a country's export goods," observes Ohlin, "it is safe to say that the foreign demand is highly elastic and, therefore, the tendency to changed terms of international exchange will be strong only in quite exceptional cases."⁶ Such a decided shift, even supposing it were to take place, could never be sustained in favour of a country producing mostly agricultural commodities and raw materials, for they would always be caught in the trade cycle when they would be hit harder, and the terms of trade would be pressed farther back. Moreover, as already argued, unregulated international trade brings about a shift in the productive order and when such a shift takes place to the disadvantage of the country, *i.e.*, when a higher order of productivity is displaced or not allowed to be reared up, by the continuous pressure of comparative advantage, it is not possible to maintain a higher level of wages. The shift is from a higher order of productivity to a lower one; as such there is no possibility for higher wages to arise. As long as such a shift takes place, people have to work harder and harder in order to maintain their consumption standard, for the real sacrifices made may be greater, even though the barter terms of trade may appear to be more favourable than before. This possibility is illustrated below by a set of figures worked out in the usual way.

C

Let us imagine two countries, one predominantly agricultural—say 'A,' and the other predominantly manufacturing—say 'M.' Suppose no trade relations exist to start with:

A produces 50 of wheat and 20 of cotton goods.

M " 10 " 60 "

Their efficiencies of production are in the following ratio.
Suppose for every unit of labour:

A produces 1 maund of wheat or 1·5 yards of cloth.

M produces 1·4 " or 4 "

The terms of exchange are:

In A for 1 md. of wheat 1·5 yds. of cloth,

In M for 1 md. of wheat 2·86 yds. of cloth,

⁵ *Indian Journal of Economics*, January, 1936.

⁶ Ohlin : *Interregional and International Trade*, p. 419.

Hence it is advantageous for A to export wheat to M and obtain cloth at any rate above 1.5 yds. of cloth per one maund of wheat. Suppose the ratio of exchange is determined under the existing conditions of wages and prices (to be included presently in the discussion) at 2 yds. per maund of wheat. If trade relations were to be set up, A has to give up her manufacture of cotton goods and take to agriculture in order to provide herself with the necessary cotton goods. Hence production in both the countries changes as follows. A produces only wheat and M will, perhaps, produce only cotton goods. To maintain the *status-quo* of consumption as before, we have:

A produces 50 plus 10 of wheat for she has to export 10 of wheat in order to obtain 20 of cloth at the rate of 1 md. to 2 yds. of cloth. M will have to produce 60 plus 20 of cotton goods. Expressed in labour units, supposing there is no variation in efficiency of production with the change in the volume of production we have:

Prior to trade relations:

A: wheat 50/1	plus cotton goods 20/1.5	equal to 63.33 L. u.
M: „ 10/1.4	„ 60/4	„ 22.14 „

After trade relations:

A: wheat 50 plus 10/1	60	„
M: cotton goods 60 plus 20/4	20	„

Now suppose that with the increase in the volume of production, diminishing returns set in in A, and M derives an advantage of increasing returns. Suppose the changes in efficiency work out as follows on the average.

The productivity is reduced from 1 say to .9 for wheat and the productivity in M is increased from 4 to 4.5 in the manufacture of cotton goods. The result is:

A: 50 plus 10/.9 equals 66.66 labour units

as compared with 63.33 labour units to start with before trade relations were established. Coming to M we have:

60 plus 20/4.5 equals 17.78 labour units.

Hence M has the greatest advantage; with the minimum labour M has been able to maintain her standard of consumption.

It may be argued that if such a change were to take place wheat would become dearer in A and cotton goods cheaper in M so that A will have to part with less wheat in order to provide herself with the necessary amount of cotton goods. It depends

of course, in the relative shifts that take place in productivity. In order to make allowance for price changes the factor of wages will be introduced and the results worked out.

Suppose wages in A are 6 annas per unit of labour;

in M 12 „ „ „

In A: 1 md. of wheat costs 0 6 0

1 yd. of cloth $0.6 \times \frac{2}{3}$ equals 0 4 0 per yd.

In M: 1.4 md. wheat..... 0 12 0

1 „ $0.12 \times \frac{10}{14} = 0.87$

In M: 4 yds. of cloth 0 12 0

1 yd. „ 0 3 0

When prices were at this level we supposed that the rate of exchange was fixed at 2 yds. of cloth for one maund of wheat. Now making allowance for variations in productivity due to variations in the volume of production we have:

A: 9 for wheat

M: 4.5 for cloth

Supposing wages remain the same, we have:

A: 9 md. of wheat..... 0 6 0

1.0 „ „ 0 6 8

M: 4.5 yds. of cloth 0 12 0

1.0 „ 0 2 8 per yd.

Suppose the rate of exchange settles at $2\frac{1}{2}$ yds. per 1 md. of wheat. Then to possess 20 yds. of cotton goods A has to export 8 mds. of wheat only. Judging from the standpoint of A we have in labour units:

50 plus $8 \div 9 = 64.44$ labour units.

Therefore even making allowance for price changes and barter terms of trade we find that A in order to maintain her consumption standard has to work harder than before trade relations were established. Certainly the barter terms of trade have improved in favour of the agricultural country; instead of 2 yds. of cloth per every maund of wheat, she is now able to get $2\frac{1}{2}$ yds. But for a consumption standard of 50 of wheat and 20 of cotton goods, prior to trade relations she was devoting 63.33 labour units, whereas after trade relations were established and displacement of cotton-industry by wheat took place, she had to devote 50 plus $8 \div 9 = 64.44$ labour units.

A mere comparison, therefore, of price fluctuations of agricultural commodities and manufactured commodities will not reveal the true situation; on the other hand they serve as a mask hiding the bitter truth. The peculiarity is that the shift either way is prejudicial to A, whereas it is advantageous to M. The increase in the volume of production of wheat and decrease in the production of cotton goods are both prejudicial to A, whereas the decrease in the production of wheat and increase in that of cotton goods are both favourable to productivity in M, so much so, that great divergence is created in the productive efficiencies of the two countries. Hence though at each cross section of time it might appear that it would be profitable to establish trade relations and allow the principle of comparative advantage to have a free play, it is still possible that the conditions might get worse than before.

D

In the above illustration the argument is based on the principle of varying costs. Even supposing that Diminishing Returns do not set in so as to render the situation worse, there is still the other possibility that conditions might not improve if an industry of increasing returns is displaced by one of decreasing returns. The whole thing rests on the consideration of 'Cost Gradients'.⁷ The gain from foreign trade must be made to depend upon some basic conditions of the country, not upon transitory causes. "If a change in the scale of production of the home country," observes Harrod, "very materially alters her cost of production, so as quickly to bring it into line with foreign prices, the gain from trade is on a small scale, and is more or less fortuitous. But if when big changes are made in the scale of operations the comparative costs at home are altered little, that means that the fundamental economic structure of the country is such as to provide a permanent and solid basis for gainful trade. In this case the cost structure ruling when foreign trade is opened is not a transitory product of a variety of special causes, but is representative of the basic conditions of the country; and if this structure differs widely from the world structure, the scene is set for profitable operation on a large scale."

The field for profitable operation therefore depends upon fundamental differences in efficiencies of production due to the basic conditions of the country. But some of the important large-scale industries like the cotton manufactures are carried on

⁷ Harrod : *International Economics*, pp. 31—35.

with equal success in many countries. The so-called natural facilities for the manufacture of cotton goods in Lancashire is a myth. The nature and variety of the goods manufactured depends much more on the stage of industrial progress than on natural facilities. The more advanced the stage of industrial progress the more finished are the goods produced. Hence the industrially advanced countries need not grudge backward countries trying to develop their industries by protection or otherwise. If there is mutual understanding between several countries and if each is prepared to march in step with the other, there need not be mutual jealousies and animosities. If the industrially backward countries take a few steps ahead, those in the front must move in harmony, so that the whole world might steadily progress. In the earlier stages of industrial progress the 'cost-gradients' are steep. As industries develop, external and internal economies are created. The supply curve is always steeper in the earlier stages and steadies with the increase in the volume of production. Hence the industrially advanced countries need not be alarmed at the first few rapid strides taken by the freshers. As Harrod says, the cost of production will come into line with foreign prices with the increase in the volume of production. The volume of foreign trade is bound to go down in all such commodities⁸ which can be manufactured with more or less equal efficiency by most of the countries, and the field for such equalisation is wide. But in this wide world we can never expect a dead level of uniformity; there is always scope for superiority of skill, intellect, and culture. But as Taussig observes "unrelaxed progress is essential to sustained superiority; he who stands still inevitably loses first place." Most of the industrially advanced nations are complaining of the barriers to international trade raised by backward countries; but they must understand that it is due to their honest attempts to come into a line with the advanced nations. Instead of resenting such attempts, the advanced countries must come to a mutual understanding with the several countries as regards the lines of development so that they may dovetail into each other. Instead of the inflexible custom barriers, quota system can be adopted, for it is flexible and allows of adjustment. The contracting countries can take into account the probable course

⁸ *Lancashire and the Far East* by Freda Utley, p. 22, "In 1925 it was calculated that the world trade in piece-goods had diminished by 16 per cent. To-day it has declined still further."

of development in each country and adjust their productive mechanism to such changes.⁹

The comparative advantage theory, therefore, is not based on unalterable conditions. The comparative advantage that one country enjoys at a particular time in a particular branch of production may be an accident of circumstances, and, on that account, it should not be argued that the momentum gained by it is its natural strength which can be allowed to have a free play to crush the younger ones in the field. The theory of comparative advantage has its limitations; such advantage may be of a temporary nature and it should not, therefore, be made a permanent foundation for the building up of international trade.

⁹ In this connection it may be noted that the Indo-Japanese Trade Agreement worked more successfully than the Indo-British one, because the former established relations between the quota of imports of Japanese cloth into India and the quota of raw cotton purchased by Japan.

THE PRICE-LEVEL IN A PROGRESSIVE STATE*

BY

B. N. ADARKAR, B.A. (Cantab.)

1. Saving and Investment.

The fundamental conditions of monetary equilibrium are that, other things being equal, the members of the community should spend the whole of their income on industrial products and that the consumers' income should be equal to the cost of the final output. It is only under these conditions that prices will be equal to costs and profits will be equal to zero. The purchasers of the final output are no other than the primary factors who have produced that output and since the incomes used for the purchase of the final output are nothing but the sum total of the payments made to the primary factors in different stages of production, a failure on their part to spend any portion of their income on final output (which includes both consumption goods and capital goods) will cause the sale proceeds of the output to fall below costs.

It is not meant that the consumers should spend the whole of their income on consumption goods, but that the portion of their income which is not spent on consumption goods—i.e., which is "saved"—should be spent on new capital goods either by the consumers themselves or by the entrepreneurs.

It is not, again, meant that the consumers should spend their incomes as soon as they earn them and should not hold any balances at all; but that they should not increase the proportion between their money-stock and their disposable income. To use Mr. Robertson's definition, let us imagine a unit period of time of such length that the income which a man receives in the period cannot be allocated during its course to any particular use; then

* An essay in the theory of the Trade Cycle based on "The Problem of Credit Policy" by E. M. F. Durbin, B.A., (London: Chapman & Hall, 1935. 1p. 267 10s. 6d.)

the income derived from his money-receipts during the period becomes his disposable income only at the beginning of the next period and his money stock may be made up partly of the money representing his disposable income and partly of the money-receipts during the next period. A man is said to be hoarding if he raises the proportion which exists at the beginning of a period between his money-stock and his disposable income; this he can do either by spending less from his disposable income than what he is receiving, or by increasing his money-stock by selling securities. In any case a portion of the community's income continues to be held idle instead of being exchanged against the output in whose production the income was earned and this is called "hoarding." The phenomenon of deflation is essentially an outcome of hoarding or this "hitch-up" in the flow of purchasing power towards the purchase of final output.

The stream of money is flowing in two channels—industrial and financial circulations. While industrial circulation means the volume of money earned in the production of physical output, financial circulation means the money required for the transfer of property rights. The savings made by the consumers first enter the financial circulation for the purchase of property rights and through it they reach entrepreneurs who use them for the purchase of new capital.

Hoarding may occur in both industrial and financial circulations. The money stocks required for business purposes change with the total money value of goods, the number of firms dealing with them or the number of stages through which goods have to pass. An increase in any of these factors sets up a tendency on the part of entrepreneurs to increase their money-stock either out of their own income or by borrowing, even though there is no change in their disposable income at the moment. A similar result may ensue from an increase in the turnover of securities or a rise in the price of securities or an increase in the number of financial middlemen dealing with them. The growth of population has the same effect on the demand for money as an increase in the number of commercial stages.

Whenever there is an increase in voluntary saving, the price level of consumption goods falls. If the equilibrium is to be restored, the new saving which enters the financial circulation must be used for the purchase of new capital, thereby raising its price-level, and inducing an increase in its output, and thus bringing about a transference of resources from the consumption to the capital goods industries. Such a transference of resources

will correct the fall in the consumption price-level. If, however, the new saving is hoarded, no such transference will take place, the fall in the price-level of consumption goods will not be corrected, and saving will continue to be in excess of investment, with all the deflationary consequences on income, output, and employment.

The disequilibrium becomes worse if the consumption entrepreneurs meet their losses by selling securities. Such an action on their part prevents a rise in the prices of securities which would have otherwise resulted from an increase in saving and thus destroys all stimulus to investment (*i.e.*, an increase in the output of new capital) by holding up the rate of interest. Of course, the sale of securities keeps up the income of the producers of consumption goods, while the income of the producers of capital goods is also maintained. But in spite of this outward appearance of equilibrium, the entrepreneurs continue to make losses and the savings of the community are wasted merely in replenishing the consumers' income.

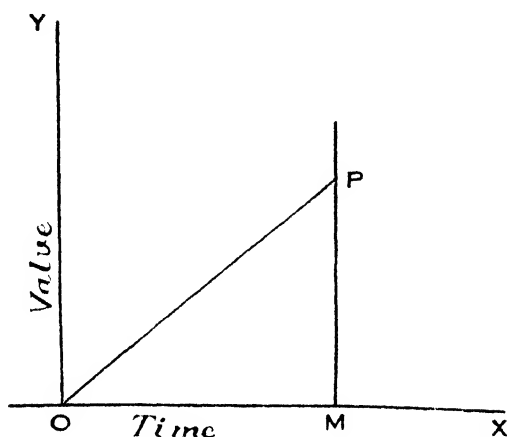
Mr. Robertson contends that even this phenomenon can be explained by the concept of hoarding. Mr. Durbin's criticism of this contention seems rather hasty. It should be obvious that the main source of disequilibrium in this case is nothing but the hoarding practised by the producers of consumption goods. The scales of securities which are normally instrumental in financing the purchases of new capital are here used merely for the purpose of strengthening money-stocks. One cannot say that there is no 'hoarding' in this case, just because there is no fall in the velocity of circulation. Although money continues to be exchanged at the same rate—it is not exchanged against final output but only against securities and hence there is hoarding.

The possible causes of deflationary changes are thus numerous and complex and the problem of credit policy is how to off-set such changes by appropriate variations in the volume of effective circulation.

2. Dynamics of Inflation.

In order to understand how the forces of inflation or deflation tend to diffuse themselves, it is necessary to have a clear conception of the complexity of productive apparatus. If we assume that primary factors are applied at a uniform rate at all stages in the productive process, the whole structure of production can be conceived as a right-angled triangle, the hypotenuse of which will show the value of output from the first to the last stage, the

intervening time being measured along one arm and the value of output at different points of time along another.



Excepting at the very earliest stage, the producers' expenditure at any stage in the industrial structure consists of the purchase of the products of the previous stage and of payments to primary factors. If new money is injected at any stage it will be passed on partly to primary factors and partly to the previous stage. A similar distribution of money will take place at the previous stage also. Ultimately when the earliest stage is reached, where the producers' expenditure consists entirely of payments to primary factors, the whole of the new money will be in the hands of consumers. Thus more and more of the new money will pass into the hands of primary factors (*i.e.*, consumers), as it travels back to the earliest stage. As the consumers' income gradually rises, their expenditure on final output will grow, as a result of which the producers' expenditure in the final and later stages will increase, which will again be distributed between intermediate products and primary factors and the consumers' income will be further reinforced.

In spite of the rapidity with which money tends to diffuse itself over the whole system, there will be an interval in which certain stages will enjoy higher prices and incomes than others. The effect of these differences on the structure of production depends on (1) whether the producers are in free competition with one another and (2) whether the factors in any stage can move to another stage in which higher prices are ruling, before the

higher prices diffuse themselves. In other words, it depends on "the period of mobility" and "the period of transaction velocity." In the presence of contractual elements the major portion of the new money will accrue to the entrepreneurs in the form of rising profits.

3. Means and Methods of Monetary Expansion.

As said above, the central problem of monetary policy is how to correct the recurring disequilibrium between costs and prices in the dynamic conditions of industrial progress by appropriate variations in the volume of effective circulation. The excess of saving over investment, which is the main deflationary force, has to be curbed by stimulating investment of appropriate magnitude.

One of the special features of this book is the author's exphasis on the fact that the demand for money for investment in capital goods is influenced not so much by changes in the market rate of interest as by the rate of invention and the level of money profits especially the profits in the consumption trades. The usual assumption that the rate of investment is controlled by the relation between the market rate of interest and the marginal product of new investment (broadly, the difference between the reduction in costs and the reduction in prices resulting from new investment) ignores the great element of risk and uncertainty involved in forecasting the trend of prices and costs. The factor of marginal productivity is quite inoperative in the short period. Mr. Durbin, therefore, concludes that the demand curve for capital is highly inelastic throughout its length. The real increase in the demand for capital can be secured only when the whole curve is pushed to the right by some such fundamental change in the conditions of demand as an increase in the profitability of consumption trades.

The artificial nature of this reasoning will be apparent on a moment's reflection. In the first place, it must be observed that the monetary effects of a rise in the rate are more direct and obvious than those following a fall in the rate. Besides, although there is an element of risk in calculating the marginal productivity of capital, there are always some types of investments in which the risk is very small. It is these *marginal* forms of investment that influence the rate. House-building and public utility undertakings are fairly sensitive to changes in the rate of interest. (Macmillan Report, p. 104.) What is more important is that the marginal productivity determines only the long term or permanent demand curve for capital. In the short period, the demand for

capital is influenced by a variety of other factors besides the marginal productivity of capital. Usually, the first reaction of the issue-houses to a rise in the bank rate is to damp down the rate of new issues in order to protect the price of their recently previous issues. (Keynes: *Treatise*, p. 204.) The deflationary atmosphere which is thus created appreciably changes the whole set of conditions which determine the demand for capital. Hence a material change in the rate of interest may by itself shift the position of the whole curve. From this point of view, the curve drawn by Mr. Durbin to prove the inelasticity of the demand for capital is as unreal as the marginal productivity curve when used for short period analysis.

The contention that the rate of interest could not stimulate investment during the last depression must take account of the fact that the rate was never allowed to fall to a sufficiently low level owing to the demand for savings from distress borrowers for financing their losses.

In the opinion of Mr. Durbin, not only the level of profits in the consumption trades exerts a much more powerful influence on the rate of investment than the rate of interest does, but the issue of interest-free consumers' credits is theoretically a much better way of stimulating investment than the issue of producers' credits. In the case of producers' credits, the new money is bound to be spent by its borrowers on intermediate and capital goods in the first instance; because it is a capital liability for them and must be used for productive purposes; but in the second period, when the new money becomes income (the income of the sellers of intermediate and capital goods), it will partly be saved and partly consumed. Thus an injection of producers' credits will occasion a subsequent increase in the demand for consumer's goods, and the emergence of profits in the consumption trades will increase the demand for capital throughout the structure of production.

The increase in the demand for consumption goods which takes place in the second period depends on how much of the new money is spent on consumption. Thus the injection of producers' credits may sometimes bring about a disproportionate expansion in the demand for consumption goods, and by distorting the relative levels of profits may affect the structure of production. No such difficulty arises in the case of consumer's credits—the new money which comes into existence does not begin as the capital liabilities of certain producers and need not, therefore, be necessarily spent on capital goods. It begins and continues indefinitely in the income category of individuals.

Mr. Durbin contradicts the idea that the issue of consumers' credits leads to a contraction in capital goods industries. Provided the issue of consumers' credits is financed out of new money and is made at a time of general unemployment, it need not encroach upon either the monetary demand for or the resources required for capital goods. On the contrary the inflation of profits in the different stages of consumption goods production should increase the demand for capital, which, on the assumption of general unemployment among the factors of production, should in its turn bring about an increase in capital output as well.

4. Objectives of Monetary Policy.

In his discussion of the alternative aims of monetary policy Mr. Durbin attaches the highest importance to the social and economic advantages of a stable price level. Within the framework of the existing institutions, however, in which a credit expansion can take place only by means of producers' credits and money costs are rigidly fixed by contracts, an attempt to stabilise the price-level will be exposed to the grave risk of cumulative inflation. If prices are stabilised at a time when costs per unit are falling on account of capital accumulation, there is bound to be a disproportionate increase in the level of profits, and assuming the rate of interest to remain constant, an enormous expansion in the demand for producers' credits. The initial issue of producers' credits, made to stabilise the price-level, must have been spent mostly on capital goods and this induced increase in producers' credits will also give a further fillip to capital goods production. The excessive encouragement given to the capital goods industries will draw productive resources to those industries and will thus give a more or less permanent twist to the normal allocation of resources between industries. Since the absolute rate of profits will go on increasing with a continuous reduction in costs, credit creation will proceed at an increasing rate, while the output will grow at a falling rate. Ultimately prices will rise and banks will have to curtail credit, resulting in disappointment of profit expectations and a crisis.

If, however, we use consumers' credits to stabilise the price-level under these conditions, a different situation will arise. Obviously, it will also lead to an inflation of profits, but it cannot generate the forces of cumulative inflation if, as Mr. Durbin proposes, bankers are prevented from satisfying the resultant increase in the demand for producers' credits. The new money

will merely inflate the incomes of primary factors in the consumption trades and whatever rate of saving the consumers adopt in view of the increase in their money incomes, there will be at least some increase in saving and hence some increase in the demand for capital. Thus, even though the demand for producers' credits is not satisfied, there will be some increase in the demand for capital goods as well. But there will be no such disproportionate increase in capital goods as will take place under a system of producers' credits.

The policy of stable prices has an important psychological advantage, since it aims at a constant rise in money incomes in face of a stable cost of living whenever there is an increase in productivity. Mr. Durbin appears to believe that the initial inflation of profits in consumption trades which results from an issue of consumer's credits will automatically bring about an inflation in other incomes (*i.e.*, wages, rents and interest). Even profit inflation can be avoided, if as he proposes, we first subsidise incomes of factors other than capital in proportion to an increase in their efficiency and thus straightaway stabilise money cost per unit. Mr. Durbin admits the impractical nature of both these suggestions. Besides, so long as the workers are unable to understand the principle behind such subsidies, there is likely to be a continuous pressure to continue and increase the subsidies even when there is no increase in productivity. If profits are allowed to rise, it is difficult to see how independent banks can be prevented from satisfying the rising demand for producers' credits. Even the expedient of increasing consumers' income by remission of taxation does not escape this difficulty of profit inflation. In face of a continuous profit inflation, there may be a pressing demand for Government interference to raise wages, with further risks of miscalculation and all the harmful repercussions which result from an excessive and unwarranted rise in money wages.

Professor Hayek's remedy of a constant circulation will fail to secure equilibrium during a period when capital accumulation leads to an increase in commercial stages. The attempt of the entrepreneurs to build money-stocks for handling the new intermediate products either out of income or by borrowing, when their own income has not increased, will act as a deflationary force. A part of current saving will be hoarded instead of being spent on new capital and will be thus wasted. Thus, if the circulation is held constant when there is an increase in the number of commercial stages, the price level will fall and businessmen will make losses.

Mr. Durbin's ideal of monetary policy is to stabilise prices by means of consumers' credits. But since it is impracticable under existing institutions, he proposes to stabilise the money income of the community. Whenever there is any tendency towards hoarding within the economic system it is bound to exert a deflationary pressure on money incomes; so that, it follows that if money incomes are stabilised any such tendency will be effectively counter-acted. There is, therefore, no wastage of savings under this plan such as is involved in the rival policy of constant circulation.

The implications of this policy under the vicissitudes of industrial progress deserve special consideration. At a time when productivity is continuously increasing and unit costs are falling, the maintenance of constant incomes would mean a fall in the price-level. The policy thus aims at reaping the fruits of industrial progress in the form of rising real incomes instead of rising money incomes. Further, it is shown that stabilisation of incomes will secure equilibrium even when there are changes in population or in the rate of capital accumulation. Both these factors influence price-level, (a) because both of them cause variations in the demand for balances (or "hoarding"), (b) and because a change in the amount of capital per head changes the output per head and the cost per unit of output, an increase in the amount leading to a fall in the cost and *vice versa*. If incomes are stabilised, hoarding will have been effectively offset and, further, prices will vary inversely as output per head, without causing any disequilibrium since costs will also vary in inverse relation to output; when changes in output are due to changes in the amount of capital per head.

The idea of constant income logically leads to that of constant income per head. However the author has adopted a round-about process of reasoning to arrive at this simple conclusion. When both population and capital are increasing, capital per head may be constant and output may grow at a constant cost per unit. But the increase in output may occasion a fall in the price-level and this in face of constant costs will cause losses; and equilibrium will not be restored till money costs are reduced. It is therefore necessary to stabilise income per head instead of total income.

It was not at all necessary first to imagine an increase in output and a consequent fall in prices in order to prove that a constant total income may mean a falling level of wages. It is difficult to see how the new members can be employed at all without a reduction in wages. If they are not employed, output

cannot grow and the price-level cannot fall. If, on the other hand, wages are reduced and the output increases, there will be no disequilibrium, since the resulting fall in the price-level will be compensated by the fall in money costs. In any case the downward pressure on wages will have come into existence before there is any increase in output.

The author himself has pointed out two limitations to the policy of constant incomes. (1) Mere constancy of incomes is no guarantee of equilibrium, especially in the type of situation which is created when the producers of consumption goods make losses as a result of an increase in saving but nevertheless keep their income constant by selling securities. The new savings which are used to purchase these securities are thus wasted, not being exchanged against new capital output. What is necessary in this case is to increase the quantity of money to compensate the decrease in the velocity of circulation against output and to create sufficient profits in capital goods industries to offset the losses in consumption goods industries.

(2) When there is a fall in the marginal product of labour relatively to that of capital, a constant total income would inevitably mean a reduction in money wages. The enforcement of such reduction can hardly be accomplished without considerable struggle.

It should be clear that Mr. Durbin's constant income policy is incompatible with the working of an international standard which necessarily involves a fluctuating price and income structure. In this respect Mr. Keynes's formula of an equilibrium between saving and Investment seems much more convenient, because the necessary equilibrium can be attained at any level of income and hence the formula can be applied to the conditions of a gold standard country also. It is only under those circumstances which require a drastic or recurrent income deflation that a departure from a fixed rate of exchange is thought advisable. Under the policy of constant incomes every kind of disturbance in the equilibrium with the outside world must express itself in the form of exchange fluctuations. If fluctuating exchanges are a necessary accompaniment of a long term policy such as the policy of constant incomes is supposed to be, the chances of its being successfully executed in the changing conditions of international affairs are, indeed, highly doubtful.

On the whole, it seems that the book is concerned mainly with the problem of preserving monetary equilibrium,—with the problem of combating the various surreptitious bacilli which germinate within the economic system and breed disorders—,

rather than with the problem of pushing the system out of the trough of depression, which is really the problem that immediately faces the financial brains of the world. On this latter aspect of the question of the trade cycle the author has no *new* and practicable solution to offer, apart from the old and much-discussed methods, *viz.*, open market policy, public works, etc. He expresses a feeling of despair about the efficacy of the existing instruments of control in the hands of the banking system to stimulate an increase in the expenditure of money as distinct from an increase in the *quantity* of money. Mr. Durbin's suggestion that the Government should stimulate expenditure by remission of taxation and finance the resulting deficit in the budget out of new money, is fraught with the grave risk of political abuse. Once the financiers are relieved of the necessity of cutting their coat according to cloth, all incentive for a scrupulous financial management is at once removed. It would be like increasing the speed of a motor car by destroying the brake.

Mr. Durbin has skilfully executed the very difficult task of analysing the various intricacies of monetary disorder, and though the suggestions made by him may be coloured by his idealistic fervour and may not appear to be immediately practicable in all respects, still the book is extremely valuable as a collection of highly ingenious, original and illuminating reflections on the very interesting problem of the price-level in a progressive state.

BANK CHAIRMEN ON THE DEFENSIVE

BY

H. R. SCOTT.

A careful study of the speeches of the Chairmen of the big five London clearing banks of deposit at their recent annual general meetings of their shareholders, will convince the student of monetary affairs that they are conscious of the ever-growing body of criticism which has been levelled against the mechanism which they seek to control under the supervision and guidance of the Bank of England.

This all powerful institution in its Banking Department is the supreme dispenser of financial credit based upon its relatively small holding of its own notes out of a limited volume of these legal tender tokens backed in its Issue Department by some £200 millions of immobilized gold at the old Mint parity of about \$ 85 per ounce troy fine plus £ 260 millions face value of Government debt. This last item is a legacy from the Great War and is held as cover for what is termed the fiduciary issue or trust money, the annual interest on which is in gradual process of reduction from the unprofitable nature of all other kinds of the employment of and for money capital to-day.

None of these gentlemen refer to the limitation imposed upon them by the nature of the necessary commodity in which they deal and they pride themselves upon the success which has attended their efforts to work under a system of the option of money on terms which provide satisfaction to their numerous shareholders and depositors alike as dividends and interest revenues.

Mr. R. McKenna of the Midland Bank states that "currency has become a secondary consideration" and although he admits that expanding trade carrying with it the call for or "entails an enlarged demand for currency," "additional currency" can be furnished by the authorities if they choose to exercise their powers "without reference to the Central Bank's holding of gold"!

I challenge this statement as incorrect and misleading for although the Bank may get special permission under its charter from the Treasury to increase its issue of notes to the extent of £ 25 millions temporarily if needed, it cannot find any legalised or generally acceptable asset to put against this increased liability in its Issue Department and such action without cover would

inevitably lead to further depreciation of sterling in terms of all foreign monies and the breakdown of the mysterious Equalisation Account financed by the sale of Treasury Bills in the London discount market at nominal rates for idle bank balances.

Meantime the export of Bank notes cannot be prevented by money-changers and might well be hoarded by foreigners who have less faith in the quality of their own paper currencies as a store of value even though tied to gold.

The strain of any larger demand for cash must be carried by the Banking Department of the Bank of England as visible in its proportion of cash to liabilities nor can any purchase of liquid securities at market prices by crediting the seller in its banking books, increase the supply of its cash although it can thereby enlarge the volume of credit built upon it.

Neither could it sell securities and demand cash in payment thereof without undermining the whole monetary system of the country as worked by the clearing banks who regard their credit balances at the Bank as cash whereas in actual fact it is only the call option of cash.

The value of sterling currency today is based upon its scarcity or the limited volume of it; the assets in the Issue Department have no real connection with it; they are displayed as a form of confidence trick; they are beyond the reach of anybody however wealthy and their possession is only an unnecessary source of expense and anxiety to the officials concerned in their protection.

The gold in the Issue Department might be revalued at the current market price of it and the excess issued to its Banking Department in new notes and this is the line which the authorities will probably take under pressure of circumstance since nothing less will move them to alter their present attitude of value in relation to paper money although it is contrary to all canons of sound finance to write up assets in order to balance excessive liabilities yet it is considered just to write them down to hide and cover up what are termed with pride as secret reserves!

Mr. McKenna has truly said "that the earning or ownership of money on whatever scale is such an important factor in our every-day lives that we find it difficult to discuss money in the abstract also that "the theories on the total supply of money have nothing to do with its distribution among classes or individuals." He overlooks the final objective of economics which is the proper distribution of goods and services and not of money except as money's worth to meet want as the counterpart or converse of wealth.

But the earning capacity of money if employed as it is by bankers for purely lending purposes apart from the ownership of it which means today only the call option of currency in the form of a credit balance in some bank, since gold coins as one form of wealth are no longer available, derives its value or worth only from the interest allowances made by banks, discount houses and building societies or provident funds, has no value at all.

So if these allowances as inducements were withdrawn as a pernicious kind of hoarding which hinders all those who seek to earn money by service, monetary management would remove "an obstacle in the way of industry and assist its "expansion" by helping to extend the area of employment and so bring production and consumption into better relationship."

Money cannot of itself create material wealth available for the rational distribution of things if it be withheld from use as savings or surplus yielding annual interest derived from a tribute levied upon consumers as part of every current market price or as taxation upon trading profits and valuations on real estate in private ownership.

If real estate be taxable on rentals in this way for local or national purpose personal estate should be equally liable but its present value depends entirely upon the revenue or income which it can command and this income again upon the market rate of interest or yield varying with the activity of trade seeking money profits.

Modern business is carried on by means of debits and credits in bankers' books but when the aggregate of debits is limited by a safe proportion of cash as reserves, the amount of cash in circulation has a distinct and fundamental relation to the volume of business which is possible without a shrinkage in the general price-level and thus the discouragement of enterprise and its consequent phenomenon of unemployment.

The value or power of money does not consist in the possession or command of it as with other things but in the need of other people who cannot live without it. The total supply of currency which when circulating can settle in theory an unlimited number of bargains, has a distinct bearing upon the general level of prices which are composed of monetary units as fractions of this total now a fixed sum of some £452 millions among a population of some 40 millions of people since if the total be increased it is obvious that all prices as the same fractions of this new total will be composed of a larger number of units and if reduced by arbitrary action must as the same fractions be adjusted by a smaller number of monetary units or the option

of them in both cases. The mechanism of this natural adjustment of money to the volume of wares offering for sale from day to day occurs in the higgling of the markets where sellers demand the largest possible prices or number of units and the buyers' bids are restricted by the possession or command of them and their efforts to acquire the wares for less if possible. This is elementary economics.

The market price thus becomes the equation not of Supply in relation to Demand but of Supply in relation to effective or monetary demand, a very different thing. If the total supply of money and its quality were governed by the need of it to effect actual transactions at steady prices and if its existence ceased when the wares in question found consumers as final buyers, as well might happen when currency is based upon value given and received between creditor and debtor and not upon some unrelated entity such as gold and government debts in the reserves of the Issuing Authority, then and then only can there be a true relationship between distribution of goods to all classes or individuals and the total volume of legal tender currency in circulation or at call as a rational and temporary medium of barter or the exchange of useful wares.

This may be the simple method referred to by Mr. McKenna whereby "every individual can be made better off without working" whereas most of us would welcome the chance of finding profitable work which seems impossible to most of us under our present monetary dispensation or restriction.

If however he refers to the well known Social Credit propaganda as suggested by the Editor of "Truth" and which doctrine assumes that credit or capital can exist without corresponding debit or debt, I would point out that Social creditors assert with some show of reason and logic that in general terms, the money disbursements of sellers of wares are not sufficient to provide the buyers of them with the necessary means to acquire them if wanted and far less to enable the former to earn money profits also. The exceptional cases which are so conspicuous today can only prove that other unknown people are selling at a loss!

I have written elsewhere on the 2nd of February regarding Mr. McKenna's words on the subject of the "Function of Gold" as telegraphed to India on the 29th of January and I have nothing to add thereto beyond the suggestion that the power of the Bank of England to acquire sovereigns at the market cost of them and its power to sell them at the market price of them in its own notes then destroyed should be limited to actual transactions in gold as

reported from day to day as without this limitation the Bank's price in new notes would dominate the market to the exclusion of all other buyers in current money or the option of it.

In this way sovereigns can act as a substitute for Bank notes if preferred at the existing premium for purposes of export or hoarding or they can be reconverted into Bank notes at the current market price of gold as a commodity as matters stand today the hoarding and the export of gold except under special licence is prohibited by law but in practice it cannot be prevented.

I believe that the banks in England were first asked not to finance forward transactions in gold and now not to advance credit on the security of gold deposited with them so I conclude that the Bank of England or the Treasury wish to discourage so far as possible any speculation in the sterling price of the metal which may interfere with the operations of the Exchange Equalisation Account's operations.

The Bank has also put a ban upon lending abroad in order to keep the rate of interest low but although low rates of interest may stimulate the activity of trade and enterprise it will also keep prices low through competition among sellers of wares and it will penalize the capitalist classes also.

OURSELVES

Mr. G. D. Karwal, M.A., Reader, Economics Department, University of Allahabad, handed over charge of the Managing Editorship of the *Indian Journal of Economics* to the present Managing Editor on the 1st of June, 1936. He had been the Managing Editor for about six years. We take the earliest opportunity of noticing his services to the Journal in this the first issue under our Managing Editorship.

The period during which Mr. Karwal was incharge of the Journal was a very momentous one in the life history of the Journal. Whereas his predecessor Mr. S. K. Rudra had by his economic management made the Journal solvent, and by his innate tact had it recognized as the organ of the Indian Economic Association, Mr. Karwal by his devotion to duty, not only maintained the heritage in-tact but also greatly improved upon it. The Journal to-day is not only self-supporting but is also a paying concern, and this is due entirely to the sound management of Mr. Karwal. But his great achievements were first to persuade the University of Allahabad to take over the financial responsibility of the Journal from the Departments of Economics and Commerce and then to bring about a more or less permanent agreement between the Indian Economic Association and the University of Allahabad whereby the Journal continues to be the organ of the Association but is jointly owned by it and the University. In these, we must confess, Mr. Karwal displayed a great deal of tact.

During the regime of Mr. Karwal the get up and printing of the Journal considerably improved owing to better paper and types replacing the old. Also the Journal began to come out fairly regularly because the April issue instead of the January issue was, at his instance, turned into the Conference Number.

Mr. Karwal also rendered services to the Journal by writing occasional notes and articles. We are certain that Mr. Karwal's services to the Journal will be appreciated by all those connected with it especially by the Editorial Board.

Although Mr. Karwal has given up the Managing Editorship, we are glad to note that he has assured the present Managing Editor that he would continue to write for the Journal and to otherwise help him in maintaining the high standard set by him (Mr. Karwal.)

REVIEWS OF BOOKS

PLANNED ECONOMY FOR INDIA, by SIR M. VISVESVARAYA. Published by The Bangalore Press, 1934, pp. 432. Price Rs. 6.

This is a book which is difficult to review in the columns of the *Economic Journal*. For, its merits are such as could not easily be appreciated by the academic economist. It adds nothing either to our knowledge of economic facts or to our interpretation of them. Part I of the work entitled *Economic Survey* is a rather bald summary of some prominent facts of our economic life interspersed with a number of All-India Statistics. Different items such as Agriculture, Industries, Transport or Finance are treated in separate chapters and to the survey in each chapter is attached an estimate of future possibilities. No special features mark the summary surveys and the estimates regarding the future do not seem to be based on any detailed consideration of all relevant factors. For example, we are simply told that "automobile industries" should be started in important centres in India, or that each province should start and maintain two or three large scale industries or that hydro-electric power should be expanded up to a certain limit. But nowhere is even an attempt made to discuss the economic conditions under which such developments would be feasible. The book is also full of such summary statements as that, present "tariff protection is inadequate," unsupported by any reasons. By comparing the statistics of the industrial population of India with other countries the conclusion is arrived at, that our salvation lies in very rapid industrialization and the main remedy suggested for bringing this about is for the Government to start and maintain new industries and give unlimited protection to old ones. In the second part a great deal is said about planning, but nowhere are the problems raised by an attempt to plan discussed. While the author seems willing enough to advocate Government help to capitalists the consequential control or regulation of their activities does not seem to be contemplated.

The book has, however, one outstanding merit. Its author is one of India's most renowned engineers and administrators. A forceful plea by such a one for a definite economic policy ("planning" in this book means no more) for India is bound to attract much wider public attention and receive greater consideration even at the hands of Government than a book written by any body else. Sir M. Visvesvaraya has very properly emphasized the features of the constitution of the present Government of India which make it impossible for it to think out a coordinated policy for India as such. Our economic policy is entirely controlled by what the author calls "dependency economics" and unless the fundamental political conditions are altered it is futile to expect real regard by Government to our economic interests. There is another point which has also been properly stressed by Sir M. Visvesvaraya. This is the urgent need for surveys and for the collection of detailed statistical information. It is possible to do something even immediately in this direction. There is nothing novel in the scheme of economic councils suggested or in such things as the rules for "citizen efficiency." But they show that attention

has been paid to every aspect of the question. The general public and even the economists have every reason to be thankful to Sir M. Visvesvaraya for his lucid and forceful plea for a well-considered economic policy for India, conceived primarily in our country's interests.

D. R. GADGIL

THE THEORY OF MONETARY POLICY, *by* BHALCHANDRA P. ADARKAR, Professor of Economics, Benares University. P. S. King, 1935. Price 7s. 6d.

As a sub-title makes clear, this boon is written with special reference to the relation between interest rates and prices. Business cycles now form the principal subject of study in applied economics, and there is considerable support for the view that for these recurring, though by no means, periodic, phenomena of economic disequilibrium a predominantly institutional explanation has to be found. As regards the particular institution which must bear the brunt of responsibility for the unwelcome incidents associated with a crisis there is, unfortunately, no agreement. A large number of economists led by Keynes feel that the disequilibrium between savings and investments is the basic fact about a trade cycle. From this position it is natural to move on to the next step of suggesting that if the banking system by regulating the rate of interest could prevent the savings investment disequilibrium from emerging we would see no more trade fluctuations.

This is the barest outline of the Keynesian view of the matter, and it is along these lines that the thought of Prof. Adarkar is also shaped. This, of course, does not detract from the great value of the arresting presentation of facts and a brilliant analysis of controversial points which are special merits in Mr. Adarkar's book. It is no exaggeration to say that no student interested in the subjects of money, banking and trade cycles can afford to neglect Prof. Adarkar's book. Even though on the main theory of the trade cycle and the interest-prices equilibrium Prof. Adarkar follows very closely the views of Keynes, he is remarkably circumspect in the claims that he puts forward for his special view-point. Prof. Adarkar agrees that powerful physical forces influence monetary and industrial structures, and that the banking system is offered only a very illusive guide in the concept of the natural rate of interest. He, however, insists, as all rational economists ought to do, that monetary and banking authorities have a definite and deliberate rôle to play in bringing about industrial stabilisation, and that it is better to try the process of influencing price-cost and investment-savings see-saws by means of action on the part of banks rather than sit idle and do nothing.

Such a broad thesis ought to be acceptable to all interested in reducing the rocking action of our present economic system. But those on whom lies the responsibility of practical action in pursuance of the theoretical prescriptions offered by economists might be excused if at this stage of the development of the thought on the subject they refuse to take up too active a role in the matter. As Mr. Adarkar rightly remarks the disruptive possibilities of misguided action are great, and what for the

illusiveness of the quantitative definition of the natural rate of interest and what for the powerful non-momentary causes brought into play the practical utility of such thesis as those contained in Prof. Adarkar's book is not very immediate. A greater statistical elaboration of the natural rate concept, a greater centralisation in banking and monetary control, and generally a greater integration and planning in the economic life of the community are essential before the interest mechanism can be fully and usefully utilised in the cause of industrial stability.

Prof. Adarkar has brilliantly reviewed the evolution of the idea of a natural rate of interest. The contributions of Fisher, Cassel, Wicksell, Hayek, Sraffa, and Bohm-Bawark are ably reviewed, more or less in a critical vein. The reader will undoubtedly find these chapters very thought-provoking. Since Prof. Adarkar published his book the English translation of Wicksell's pioneer work on the subject has been made available. Though the criticism of Prof. Adarkar as to the confusing descriptions given by Wicksell about his natural rate appear now to be fully justified, the practical conclusions arrived at by Wicksell are remarkably immune from much fatal criticism. That Keynes's ideas about the interest rate and about the output-earning balance have not been altogether unambiguous even to such a careful student of his as Prof. Adarkar is not surprising. It is all to the credit of Prof. Adarkar that in giving Cæsar his due he has not only acknowledged his great indebtedness to him, but has helped to elaborate some of the less intelligible parts of Keynes's doctrine, which centre round the $I=S$ formula.

Prof. Adarkar has written a very able and scholarly work, which ought to attract wide attention in this and other countries. The appeal of the book is mainly to the economists and advanced students who must read and ponder over the contents of the book to get a full appreciation of Prof. Adarkar's contribution to the theory of interest-prices correlation. A very rough idea of the tendency of his thought can be had from the following extracts. 'The savings-investment factor is the backbone of the trade cycle theory.' 'The costs-prices equilibrium is of the greatest importance in this respect.' 'Following Keynes I believe that the main condition of industrial equilibrium is that windfall profits are zero, and costs-prices, and $I=S$. The function of the natural rate in this scheme is to maintain the costs-prices and the $I=S$ equilibrium, and monetary control means that prices must not be allowed to lag behind costs in their downward or upward trend. They must be periodically adjusted to costs.'

Prof. Adarkar sees no merit in the contrary view that out of a depressed condition of trade, lowered costs may be left to create a new equilibrium. The general air of circumspection and openness of mind has not, it appears, served him well in this respect. If it is a vicious circle to argue that reduced costs by contracting purchasing power would lead to further fall in prices, is it not an equally vicious circle to argue that rise in prices would lead to further expansion of supply and a further fall in prices? There is reason to believe that once we accept the principle of a deliberate monetary and credit regulation with a view to secure industrial stability, both ends, costs as well as prices, ought to be normally kept in view by the controlling authority. It is true, as Prof. Adarkar observes, that the investment end is the more readily susceptible to banking regulation. But in certain situations a direct approach to the costs-schedule may

be a valuable and effective instrument of stabilisation. We must admit that dogmatic and onesided opinions are least appropriate to a new instrument of comprehensive economic regulation as is now being forged round the interest rate mechanism. Prof. Adarkar's treatment of the theme is one of the most brilliant and lucid that I have come across and I whole-heartedly recommend his book to all economists as an extremely valuable addition to the literature on the subject.

D. G. KARVE

INDIAN SUGAR INDUSTRY, 1935 (Annual), by M. P. GANDHI, Secretary, Indian Sugar Mills Association, pp. 77. Price Rs. 2-4.

In this monograph the author attempts a survey of the Sugar Industry in India in 1934-35 and examines the problems facing the industry at present and its future. While in 1933-34 the number of sugar factories indicated an increase of about 200 per cent on the previous year, during the year under review the number of new factories was only 23. Mr. Gandhi points out that this set-back is due to a number of causes: the excise duty on sugar, the continued importation of cheap Java Sugar in spite of Tariff duties, the passing of the Sugarcane Act of 1934 for fixation of minimum prices of cane, the feeling on the part of manufacturers that the existing factories would be able to meet the demand, their fear that more money would not be spent by Government for improving cane, and the absence of sale for molasses. For enabling the industry to tide over the present crisis and to place it on a secure footing changes in various directions would seem to be necessary.

After tracing the comparative growth of the industry in various provinces, he goes into a detailed examination of the various aspects of the industry such as, the production and consumption of sugar in India during the period, the area under sugarcane, the profits made by the industry and the various legislative enactments. Mr. Gandhi considers that the importation of cheap sugar from Java is a serious menace to the growth of this industry; and this is so because Java has been able to cut down the prices of her accumulated stocks to a level not imagined by the Tariff Board in 1931.

The author traces the vicissitudes the industry passed through in 1934-35 and remarks that radical changes are necessary for consolidating its position and improving its efficiency. He points out that the sugar industry in India is very much behind other countries in the efficiency of production. The problem relates not merely to the crushing of cane but also to the quality of cane produced. He suggests various remedies for improving cultivation. Attention has also to be devoted to the proper utilization of the bye-products of the industry, *viz.*, molasses and bagasse. It is worth exploring whether the manufacture and export of alcohol from molasses would not be a paying proposition. The author examines in addition some other allied problems and ends with a note of optimism by remarking that in 1935-36 India may even be able to export sugar to other countries.

The two appendices to the book deal with the world sugar situation and the location and capacity of sugar mills in India. This excellently written monograph should be of invaluable assistance to those who are interested in the Indian Sugar Industry.

B. V. NARAYANASWAMY

STUDIES IN ADMINISTRATION AND FINANCE, by EDWARD HUGHES, M.A. (University of Manchester Tout Memorial Publication Fund), pp. 528. Price 21s.

This book deals chiefly with the history of salt tax in England, but contains also a detailed account of the administration of the excise department, in the 17th and 18th centuries. A salt excise existed in England from the middle of the 17th century and continued to be levied all through the eighteenth. In 1793, the rate was 10 shillings a bushel. It became very unpopular during the depression that followed the Napoleonic Wars, and was repealed in 1825. Sir Thomas Bernard (whose portrait serves as a frontispiece to the volume) was chiefly instrumental for the repeal. Warren Hastings was also an advocate of repeal, notwithstanding the fact that he was the founder of the salt excise in Bengal.

Incidentally, the author has given many interesting details of public administration in England during the 17th and 18th centuries and disproves several pet theories of writers on the subject. For instance, he questions Graham Wallas' well-known opinion that "the creation of the Civil Service was one of the great political inventions of 19th century in England, and like other inventions, it was worked out under the pressure of an urgent practical problem—the pressure of the Indian Civil Service" a view accepted by writers alike Trevelyan and Moses. He has shown that in the 18th century were evolved some of the essential principles of the Civil Service, *viz.*, permanency, family succession, accumulated experience as a factor in promotion, aloofness from politics, absence of immediate departmental responsibility to Parliament, the system of communicating in writing rather than by oral means presupposing a large measure of departmental independence and something approaching a recognised division of functions, and the mode of selection by examination tests. "It will be interesting to note," he writes, "that Adam Smith owed his place as much to the fact that his father had served as Comptroller of the Scottish Customs as to the *Wealth of Nations*. And it may yet prove to be more than a remarkable coincidence that of the five 'agents' chosen by Warren Hastings to organise the Government Salt monopoly in British India, two happen to bear the names of Dent and Griffith, names that suggest direct associations with the English Salt Office." And he shows how in the 18th century the principle of permanency had gone beyond its limits, as retirement depended only on voluntary resignation.

It is not possible in a review to refer to the many other interesting points dealt with in the book. The administration of the salt duty in the Elizabethan, Tudor and Stuart days, the evils of farming taxes, the development of the salt industry at various centres, the competition between rock

salt and bay salt, the revolution that occurred in the industry with the introduction of steam engine and the discovery of rock salt, the interaction of excise and import duties on the growth of the industry and its repercussions on subsidiary and dependent trades like bleaching, chemical manufacture, agriculture, mail-making, pan-making, etc., are all dealt with in an exhaustive and interesting manner. The analysis by the author of the two 18th century surveys of the industry—that of Cardonell and of Philip London throws light on the changes in the industry over a long and important period and the developments in policy of Walpole and the younger Pitt. Cardonell's conception of a good officer as one possessing a fine handwriting and sobriety is striking and the concern of the State for revenue is brought to bold relief. The exceptional encroachment of Treasury patronage on departmental matters, "from innocent new year gifts to secret service money" and the financial inconsistency and taxation principles of Walpole are vividly and minutely described.

The book is written in a clear and racy style. The documents of literary men like Swift, Sheridan and Defoe are made to render valuable service. The definition of the word 'excise' by Dr. Johnson as "a hateful tax levied upon commodities and adjudged not by common judges of property but by wretches hired by those to whom excise is paid" is searchingly examined. And the stray touches of humour help to add some pep to a book brimming with facts. Mr. Edward Hughes is to be congratulated on having written such a valuable book. The book has a particular value to Indian students, as in this country a revenue of nearly 8 crores is raised from salt.

P. J. THOMAS

THE REFORMS SCHEME, A CRITICAL STUDY, by D. N. BANERJEE.
(Longmans, Green & Co., Ltd.). 1935. pp. 189.

This book is a collection of lectures delivered by the author, on different occasions soon after the publication of the White Paper on Indian Constitutional Reforms. Naturally the book suffers from a certain amount of inevitable repetition of the subject-matter, in different parts of the book. We are glad that the author has lent his support to a large number of views, put forth by non-officials, on the White Paper and the Report of the Joint Select Committee on Indian Reforms. Thus when dealing with Commercial discrimination "as expounded in the Report of the J. P. C. Mr. Banerjee has exposed the hollowness of the Britisher's claim, based on the doctrine of reciprocity and has emphasised that (*Vide* Part II of his book) even the existing amount of fiscal autonomy, would be diluted considerably when the recommendations of the J. P. C., regarding the prevention of all legislation discriminating against British imports into India, is placed on the statute book. An examination of the proposed scheme of provincial autonomy leads Mr. Banerjee to describe quite appropriately, "provincial autonomy, as Gubernatorial autonomy" for after all, the pivot of the Federal Executive and the pivot of the proposed Provincial Executive, would be the Governor-General and the Governor respectively.

A persual of the draft instruments of instructions, has rightly led Mr. Banerjee, to emphasize, that they introduce nothing new into the frame work of the constitution. One has to notice the specific instruction in the Government of India Act, under which, the validity of anything done by the Governor-General or the Governor of a Province, shall not be called in question, on the ground, that it was done otherwise than in accordance with any instrument of instructions issued to him.

In Appendix (A) where some of the requisites of a Federation for India are indicated, Mr. Banerjee suggests that though the future Constitution of India, should be federal in form, it should have a unitary bias and that on the whole, "the example of Canadian federalism, would be a better guide in federating India, than that of Australian federalism." He is for direct election to the Lower House of the Indian Federal Legislature, and the adoption of the federal principle, in the constitution of the second chamber. It need hardly be stated, that the book does not attempt, to deal with all aspects of the subject of Indian Constitutional Reform. We trust, when and if our author brings out an enlarged study of the Reforms scheme, space would be found, for discussion of subjects like the position of the Indian States under the Federation, the allocation of financial powers between the Federation and the units of the Federation, and Financial Safeguards, implied in the Creation of the twin Institutions, the Reserve Bank and the Statutory Railway authority.

Doubtless, the addition of an Index, at the end of the book, would add to the usefulness of the book considerably.

M. K. MUNISWAMI.

"FINANCIAL PROBLEMS OF THE STATES IN FEDERAL INDIA," by V. L. D'SOUZA, Professor of Economics, Mysore University. The Bangalore Press, 1935, pp. 86.

We thought that the thesis put forward by the author, in his Preface to the book "Contrary to opinion, in British India, the states are not so much bent on getting what they can, out of the Federation, as on contributing what they can to the common stock," would be adequately supported, in the book itself, but we must confess to a certain amount of disappointment in this matter. Major portion of the book, would be familiar to students of the Reports of the Davidson and Wind Committees.

Taking particularly the case of Mysore, with which our author is specially familiar, we are told that "the revenues of the state being inelastic, and all too insufficient to meet the demands of a progressive state, the cost of the Federation, in the shape of additional lines, *viz.*, the Federal excises, the surcharge on income-tax, and the composition tax, can only be met out of the relief, obtained through the relief of the subsidy." But it must be remembered that the case of Mysore is *sui generis*: there are numerous states, with no systems of income-taxes at all, and enjoying, important commercial privileges. As the author puts it "it is but proper that the Federal Government should be reimbursed and since, it is neither possible for the states, to give up the rights, nor

for the Federation, to bring up these rights, there should be a provision, in the new constitution for effecting adjustments in respect of any special privilege or immunity of a financial character, enjoyed by a state. Roughly speaking writes Prof. D'Souza, following the Davidson Committee, a sum of Rs. 256 lakhs will be withheld, by the (page 69) Federal Government, from the share of revenues, to be assigned to the states. The Ministers' Committee have taken strong objection to the principle of balancing the immunities against the refund of taxes and duties. In their view, it amounts to a distortion of the federal picture painted by the J. P. C." But, how are we to solve the problem at all? It would be obviously impossible to arrive at an exactly mathematical equivalence, between the benefits conferred on the nations and the reciprocal obligations cast on them. The effects of the Federation, are bound to vary as between the various states. We wish that the apologists of State Rights, would realize (though we ourselves are aware of the fact, that in the case of a few Indian States, their adequate industrial development was starved in the interests of British India) that even in the case of a State like Mysore, the opening up of means of communication, on all sides into British India, is bound to establish new or larger markets for her produce. A small bibliography of books bearing on Indian States, has wisely been attached to this book, by Prof. D'Souza, to increase the usefulness of his publication. The Bangalore Press is to be congratulated on the excellent printing of the book.

M. K. MUNISWAMI.

INDUSTRIAL ORGANISATION IN INDIA. by P. S. LOKANATHAN. M.A., B.Sc.
(G. ALLEN AND UNWIN, 1935. pp. 413.) Price 15s. net.

Dr. Lokanathan is not unknown to the readers of our Journal. He has contributed papers to some of our conferences which have already been published in it. His maiden attempt at economic investigation bore fruit in a very readable book on 'INDUSTRIAL WELFARE IN INDIA' which was favourably reviewed in Volume XI of this journal. The book under review at present is a more ambitious and elaborate work of the author. It was prepared as a thesis for the degree of Doctor of Science in Economics of the London University and published with the help of a grant-in-aid from its Publication Fund. In the author's own words "This work is the result of investigation and study pursued for nearly five years during which the writer visited important Industrial centres in India, England, Austria, and Germany. It attempts to examine the structure and efficiency of Industrial organisation in India."

Dr. P. P. Pillai may claim to be a pioneer in this field of Indian economics. The major part of his interesting and luminous volume on "The Economic Conditions in India" (1925) is devoted to the factory Industries of India. But Dr. Lokanathan's treatment of the subject is of a different character from that of Dr. Pillai. While the latter has given only a descriptive account of their growth and present condition, the former has attempted to analyse their internal structure and working. The

Managing Agency System, which furnishes the clue to the origin development and working of most of the large scale Industrial firms in India and which may be regarded as the main *thesis* of Dr. Lokanathan's book, has been disposed of by Dr. Pillai in a single sentence (page 185). This is perhaps due to the fact that the information available on the subject was very meagre ten years ago, but has considerably increased since then, thanks to the labours of the Indian Tariff Board and the Provincial and Central Banking Enquiry Committees. Dr. Lokanathan has carefully sifted and gathered together all the material pertaining to his subject scattered about in the pages of the many volumes of Reports and Evidence of these various bodies. To the dry-as-dust facts of these publications he has added the results of his personal interviews and correspondence with some leading businessmen, such as Sir Campbell Rhodes and Sir Thomas Catto, who have an inside knowledge of the Managing Agency System. As the result of all this he has furnished us with the best account of it. Four out of the ten chapters of his book, (Chapters I, VI, VIII, and IX) are devoted wholly to the tracing of its origin, evolution and features, and a description of its influence on the structure of Indian Industry and its prospects in the future. Two other chapters also (Chapters IV and V) are in part concerned with certain other aspects of the system. In recent years it has come in for a large volume of vigorous criticism at the hands of publicists and businessmen. Dr. Lokanathan has set out rather courageously to defend it against these attacks and has attempted to establish the proposition that: "Indian Industry which owes already so much to the system, has more to gain by curing it of its admitted defects than by abolishing it altogether" (Preface). A careful and impartial student of his book will probably agree with him in this conclusion. For, as he has put it in another place: "No new institution can be suddenly and newly created to take the place of an existing agency and the only possible line of reform is readaptation and readjustment to changed economic and social conditions." (Page 229). This is in accordance with the wise motto of Dr. Marshall's Principles of Economics: "*Natura non facit saltum.*" (Nature does not make a leap), a principle as true of economic institutions as of natural organisms.

To go into the details of Dr. Lokanathan's treatment of his thesis, one is struck by certain defects, resulting from and perhaps incidental to the conditions under which the work was prepared and published. One feels that the subject-matter could well have been compressed into a smaller bulk and a more scientific method adopted in dealing with the subject. There is a certain amount of overlapping and repetition in Chapters I, VIII and IX, as well as in Chapters IV, V, and VI, all of which deal with one or other aspect of the Managing Agency System. Again though the treatment is very elaborate and in some places diffuse, there are significant omissions. For example, there is no definition or explanation of the term Managing Agency, anywhere in the book. The history of the rise and growth of the System finds no place in it, on the ground that "it is not possible to trace the origin . . . as it was the result of gradual evolution." (Page 15). But the author is quite aware of its genesis. For, in another connection he points out that Managing Agents were "inheritors of the tradition of the earlier Agency firms who combined a large amount of banking business as subsidiary to their other activities" (page 217). He

might well have explained this point; for, the Managing Agency System still bears the marks of its birth, much to its own disadvantage and the disadvantage of Indian Industry in general. Further the classification of Managing firms which the author has adopted is neither scientific nor satisfactory. He distinguishes between British M. A. firms, Indian firms in Bombay and those in Ahmedabad, a distinction which is not very helpful. A better classification perhaps would be; M. A. of single firms, those of a number of firms of the same industry and those concerned with a number of firms of different kinds of industry. Such a classification would have been of greater use to him in Chapter VIII. Lastly, the different functions performed by M. Agents are not clearly distinguished and explained. They may be said to be: (1) Prospecting, (2) Promoting, (3) Organising, (4) Administering, (5) Financing and (6) Marketing. It may be that it is difficult to draw the lines of division between some of these functions in practice but from the point of view of the student of Indian Industrial Organisation it is very necessary and important to distinguish between these aspects of M. A. work. For the services of the Managing Agents are of different value in these various respects.

We may next attempt to briefly indicate the views of Dr. Lokanathan on these aspects, with a few comments of our own. All are agreed that the system has done yeoman service to the *Pioneering* of large scale industries in India. But as the Industrial Commission of 1918 pointed out: "They have not escaped criticism as exhibiting undue reluctance to embark on new ventures. They have been charged with lack of enterprise and unwillingness to follow up lines of development naturally proceeding from the expansion of operations in their own specialised Industries" (page 9.) a view which our author endorses. In other words, the System has now lost the pioneering spirit which it had originally possessed.

In regard to the work of *Promoting*, the system still holds the field and the remarks of Dr. Lokanathan (pages 36—38) on this point are well worth attention. He says: "Managing Agents perform services in India which issue houses were doing in other countries." The name of the Managing Agent was in itself a guarantee to the public of the soundness of the enterprise in which he was interested." "The system of promotion by Managing Agents was thus a distinct gain to Industry." But as against this, the author has also pointed out in the same place a drawback of the system: "A scheme sound in itself and promoted by a person not belonging to an Agency firm might be unable to effect a successful floatation. When to this is added the fact that Managing Agents were sometimes unenterprising, it is obvious that some desirable ventures might have been crowded out." There is also the danger that, because a Managing Agent has won a good name, he floats unprofitable concerns. Thus he multiplies factories of the same Industry in one place—Cotton mills in Bombay and Jute mills in Calcutta—beyond the point of profitability.

The function of promotion is closely connected with those of *Organisation* and *Administration*. For, as Dr. Lokanathan has pointed out: "In return for organising a business unit the promoter enters into an agreement by which he becomes the Managing Agent of the concern for a definite period of time and cannot ordinarily be turned out." (Page 34.)

Again, "They were . . . Universal providers of Industry, being promoters, financiers and managers of ventures they established" (pages 36, 37.) The whole of chapter VIII of the book deals with these questions but as the author has not drawn any distinction between the Managing Agent of a single firm and of a multiplicity of firms the treatment is a bit confused. While the bulk of the chapter seems to refer to the latter class alone, one section (§4) is equally applicable to the former.

The question of *finance* has been treated very elaborately by the author. In fact, 'Industrial finance' is a *subsidiary thesis* of the book, occupying as it does the four central chapters (Chapters IV—VII), in one of which there is the interlocking of the two theses. (Chapter VI). It will take us too far to follow the author closely in this elaborate and somewhat diffuse excursions, but we may refer to certain outstanding features. The Managing Agent renders financial assistance to the affiliated firm or firms at every stage of its life, at its inception, at its later conduct, at its expansion and perhaps even at its liquidation (?). So great is the importance of this function that the *raison d'être* of the whole system itself may be said to be Finance, (see page 215). Dr. Lokanathan has explained both the merits and the defects of this practice (pp. 220—228).

The *Marketing* function of the Managing Agent has been just hinted at by the author in one or two places (e.g., pp. 85, 237) and perhaps deserves a more elaborate treatment.

To conclude our remarks on the main thesis of the book, the author appears in the role of an apologist if not a champion, of the Managing Agency System and would like to grant it a fresh lease of life, having purged it of its defects and toned it up by some remedies, (see Chapter IX). One may however doubt the efficacy of some of these prescriptions or even of the possibility of administering them. The attempt of Dr. Lokanathan to distinguish between the merit of the system as such and of those who work it (see page 309), is somewhat fanciful. Again, whether the establishment of a board of supervision, as suggested by him, to serve as a buffer between the shareholders and the Managing Agent of a firm is practicable and whether anything like Co-operation or 'Konsortium' among the various Managing Agency firms recommended by the learned Dr. is possible (pages 304—8, 348—50) are questions on which opinions may differ.

It only remains for us very briefly to refer to the other topics of the book—such as Localisation, the Size of the Industrial Unit and Labour Conditions. They are pitched in a minor key than the other part of the book. For one thing, they refer only to the major factory industries ordinarily in the hands of M. A. Firms and not to *all* large scale enterprises. In regard to the first question, the author does not distinguish 'location' from 'localisation' and has not cared to consider the importance of *Finance and Managerial Ability* as factors conducive to localisation. The conceptions of representative firm and optimum firm have been referred to in Chapter III as though they are elementary, precise and undisputed (page 86-7). But in applying them to the size of business unit in India he is compelled to accept the elusive character of these terms (e.g., pp. 104 and 114). One might also demur to his conclusion: "Broadly speaking, it would be correct to state that better results may be

achieved when industry is established on a small scale to start with and allowed to grow slowly." (page 133). For, if the scale is so small that the cost of production is very high it may not be given any chance to grow up at all. As the author himself has admitted in another place: "For each industry there is a minimum size of individual units requisite to ensure efficient production and smaller units would not be able to produce economically and compete successfully." (Page 86). The last chapter of the book which deals with Wages and Efficiency is closely packed with interesting information and is a useful supplement to his earlier work on Industrial Welfare.

In conclusion, we wish to congratulate Dr. Lokanathan on his painstaking and praiseworthy attempt to explore certain important though neglected aspects of Industrial Organisation in India and would strongly commend his work to the careful attention of students of Indian Economics.

N. S. NARASIMHA AIYANGAR.

PLAN OR NO PLAN, *by* BARBARA WOOTTON. VICTOR COLLANZ, LTD., LONDON, 1934. pp. 352. Price 5/-.

This book is concerned with a comparison between the planned economy as has obtained in Soviet Russia and the unplanned economy as exists in England, France, Germany and the U.S.A. It can easily be divided into three parts—descriptive, critical and constructive. The first two chapters are descriptive. They describe the operation and nature of the two economies as well as the decisions for which they are responsible. In the unplanned economy practically the whole business is guided by the price movements; the decisions made are quantitative: so much of this and so much of that; and the economy is automatic in the sense that it possesses a *peculiar* power of running itself. Human volition is there but it works within very narrow limits. Under the planned economy, the price mechanism has been entirely ruled out in certain spheres and partly in certain others. But where it exists and its stimulus operates the results obtained might be quite different from those realized under the unplanned economy as the authorities can manipulate things to serve their own ends. They control production, distribution and consumption.

The next two chapters are critical. They assess the achievements and possibilities of the two economies. The unplanned economy has to its credit a record of spectacular progress consisting in an immense increase in output and a great reduction in hours of work. But the progress has been very irregular. A great section of the people has hardly done more than touch its fringe. Also the economy is subject to periodical hold-ups for the causes of which we have to look "to the mistaken forecasts of the producers, to the defective operation of our monetary systems, and possibly, though in a less degree, to the growing rigidity of at least the older capitalistic societies," (p. 162). One other cause that is particularly responsible for its inefficiency is the centrifugal tendency which springs from the conflict between the individual or sectional interests and the

interests of the whole society. Excepting the monetary cause, these causes do not seem to be possible of elimination.

As regards the planned economy, it has not anything spectacular to show. Indeed the standard of living of the people under it hardly approaches that which is enjoyed by those except the most unfortunate under the unplanned economy. But it distributes what is there to distribute in more or less equal fashion. And it is full of hope for the future. It claims freedom from the fear of the overproduction bogey. It can do away with unemployment maybe not consistently with efficiency as well as with the clash between private and public interests.

The last two chapters contain the constructive part of the book. In Chapter V the author makes out a strong case for the peaceful establishment of planned economy in a capitalistic country like England. She is of the opinion that it is possible as well as desirable to bring about such an economy without first passing through the welter of revolution and social upheaval as did Russia. The obstacles that stand in the way are not natural or technical but human. She admits that the removal of the human obstacle will be a tough job but regards it as being not insurmountable. If enough of the people wish to accomplish it, it can certainly be accomplished. She reasons out her case on its own merits and on the chances of its success and reinforces it by arguments against resort to revolution.

The author's conception of the planned economy which she wants to see introduced is contained in this passage. "It would demand the co-operation of the *whole* people, of all social classes, in making the economic system feed and clothe and entertain the *whole* people more effectively, in relation to the established standards and expectations of different classes, than it does at present. It would require that an entire nation, ignoring its sectional and class conflicts of interest, should unite in doing something which is to the evident advantage of practically all the members of that nation; though not equally to the advantage of all and not as much perhaps to the advantage of some, as other courses which, however, must disunite rather than unite, since the gain they would bring to one group would be counterbalanced by grave disadvantages to others." Pp. 283-84. The reform is, of course, not complete. But says the author "Because we cannot step straight into Utopia is no ground for despising the limited step, the partial reform, the measure which makes things not perfect, but better than they were before." P. 301.

In Chapter VI the author enumerates the conditions of successful planning. They are as follows: First, there should exist full knowledge of the economic facts of the country and also ability to use that knowledge; secondly, there should be organised an authority to draw up plans and to supervise their execution; thirdly, the instruments of production should be socialized; and fourthly, some control over the people who are to carry out the plan should be allowed.

The book is an excellent example of clear thinking, cogent reasoning and masterful analysis. The authress has complete grasp of the subjects she discusses. She presents to us the picture of the planned and the unplanned economy in all its lights and shades, and her case for constituting a peaceful planned economy is put in a dispassionate way. The book

should be studied by the socialists, the anti-socialists as well as those who hold the middle position.

G. D. K.

THE DEVELOPMENT OF CAPITALISTIC ENTERPRISE IN INDIA, by DANIEL H. BUCHANAN. The Macmillan Company, New York, 1934, pp. 497. Price 21s.

This work is divided into nineteen chapters. They are headed:—The Country and Its People—Indigenous Economy and Culture—The European in Indian Economy: Plantation Industries: Indigo—Plantation Industries (continued): Tea, Coffee, Rubber—Cottage and Unorganised Industry—Transitional Stages in Industrial Organization—The Record of Industrialization—Business Leadership: Capital, Banking, Organization—Transportation and Markets—Cotton and Cotton Manufactures—Jute and Jute Manufactures—Coal and Coal Mining—Iron and Steel—Labour: Sources and Conditions—Wages: Additions and Subtractions: Debt—Labour Efficiency—The Workers' Standard of Living—The Labour Movement—The British in India.

The aim of the work is "to trace the development of capitalistic enterprise in India and to explain the more important variations which have marked its growth." P. 2. This aim the work satisfactorily achieves. The author has to his credit vast reading and observation on the subject. He is thus well prepared for the task in his hand. He explains the course of the industrial evolution of India in a praiseworthy manner. The various topics that fall within its scope and are named above are treated in fair detail in all their bearings.

What is chiefly to be noted about the author is that his approach to all the questions is without bias. He is neither an Indian nor a Britisher, but an American which means that he has neither nationalistic nor imperialistic prejudices. He is therefore able to take a detached view of things. But as his views are practically the same as those of moderate Indians where controversial matters are concerned, he will probably be regarded by people of imperialistic leaning as being pro-Indian. Certainly he is sympathetic towards India. But that is so because he looks on Indian problems from the Indian point of view—an attitude which every right-thinking author would adopt. That attitude however does not in any way make him unjust to Great Britain under whose rule the industrialisation of India on modern capitalistic lines is proceeding. No, he gives her due credit for all that she has done in this country though it is not what could have been done if a proper policy had been followed.

Some of the views of the author might be quoted. About the industrial evolution of India he says that although the environment in which the factory system was first installed here was quite different from that in which it was first established in Europe yet the Indian industrial evolution has not been unlike that of Europe. Parallels between the two can be noticed all along the line.

"We see" he tells us, "the tenacity of handicraft industry in the production of non-standardised goods, as in Europe. With the growth of

distant markets we see the "finance and order" and the "putting out systems" displaying the permanent vitality and adaptability of long continuing institutional forms. Finally we discover a perfect maze of organizational types functioning not only side by side but in the same business and under the same control. We have also the great variety of ways and adjustments by which progress is made towards the full development of the factory system, despite the difficulties of machinery and disciplined production among a people unaccustomed to the habits and concepts which the machine-age involves." Pp. 125-26.

About the effect of the means of transport, he remarks "Improved transport, both external and internal, started a revolution in Indian economic and social life; but it came from the outside and found the Indians unprepared. If with it had come protection to Indian market, it would have provided a great stimulus to Indian manufacturing. While improved transport was a *sine qua non* of the growth of manufacturing in the country, it was accompanied by such a combination of conditions—free trade and competition with other countries already far-advanced in industry—as to develop European rather than Indian industry." P. 193.

As to the record of Indian industrialization he points out that the factory system has become well established in the country: still the country has not changed from an agricultural to an industrial state. P. 141. The results of Indian industrialization are thus extremely disappointing and this in spite of the fact that materials and conditions existed which if taken advantage of would have made the country a land of industries. "Here was" he says, "a country with all the crude elements upon which manufacturing depends, yet during more than a century it has imported factory-made goods in large quantities and has developed only a few of the simplest industries for which machinery and organization had been highly perfected in other countries. With abundant supplies of raw cotton, raw jute, easily mined coal, easily mined and exceptionally high-grade iron ore; with a redundant population often starving because of lack of profitable employment; with a hoard of gold and silver second perhaps to that of no other country in the world; and with access through the British Government to a money market which was lending large quantities of capital to the entire world; with an opening under their own flag for British business leaders who were developing both at home and in numerous new countries, all sorts of capitalistic industries; with an excellent market within her own borders and near at hand in which others were selling great quantities of manufactures; with all these advantages, India, after a century, was supporting only about two per cent of her population by factory industry." Pp. 450-51.

The reasons that have kept India backward industrially have been many. The author enumerates them as being geographic, climatic, economic and sociological as well as those pertaining to differences between the rulers and the ruled and to prejudices and antagonisms of colour, race, language and religion. But all these, he holds, were not insuperable. A bold programme of industrialization backed by protection would have solved the economic problem of India and regenerated her industrially. As it has been the government did nothing substantially till recent times in the line though in many other directions its services have been invaluable.

There is one minor point in regard to which our observation and knowledge differ from those of the author. He says that "in Indian village economy the payment to the washerman depended on the number of adult women in the household and for the barber on the number of males old enough to be shaved." P. 14. Such might have been the case in villages in South India. We know nothing about it. But in villages in Northern India this was not so. Here the amount that was paid to the village servants was calculated on the basis of the number of ploughs a family worked. That it did not depend upon the number of persons a family had is clear from the fact that it did not generally vary with number of family members and that any servant who would have dared to enquire about the number of persons a family had in order to arrive at it would have got himself into hot water. Superstitious people, as our villagefolk are, do not like that sort of question to be put.

The work is a remarkable addition to the literature on Indian industrial development and deserves to be perused by our countrymen, particularly the industrialists.

G. D. K.

DECAY OF INDIAN INDUSTRIES, by P. R. RAMCHANDRA RAO. D. B. Tara-porevala Sons & Co., Bombay, 1935. pp. 155. Price Rs. 2.

In this monograph the author is concerned mainly with an analysis of the causes of the decay of Indian industries. But to show the significance of that analysis he also gives a brief account of the industrial part of the country and points out the consequences of the decay. Further, he suggests, though he admits that it is not relevant to his purpose, the lines along which the industrial revival of India should proceed.

The author quotes from contemporary sources to show that India in the past was a great industrial country. A number of handicrafts existed within her borders and their products were much prized in the country as well as in foreign lands. The chief of those industries, he tells us, were cotton and woollen manufactures, sericulture, iron and steel, enamelling, glass-making, sugar and ship-building.

Some of those industries are no more while the rest are in a decadent condition. The causes of this state of affairs, he enumerates as having been: the artistic indifference of the kings and the nobles in the later days of the Moghul Empire; the abolition of the native courts; the misrule of the East India Company; the maintenance of internal duties in India and the granting of preferential treatment to English products; the prohibition of Indian imports into England by high protective duties and the adoption of free trade by Great Britain when the Industrial Revolution had taken place there the change of fashion in India as the direct result of the establishment of the British rule and the development of the means of transport in India.

The consequences of the industrial decline have been twofold, namely, the progressive ruralization of the country and the increase of pressure on the land.

As regards the way in which the industrial rehabilitation of the country should be brought about the author explains, that mechanization of industry would not be the right procedure to adopt. Mechanization of industry, he says, will economize labour. But what India needs, under the existing circumstances, is not labour-saving machinery but labour-absorbing machinery. Labour, which India has in plenty, can be absorbed only by a revival of her traditional handicrafts. In the revival of these, therefore, should a solution of the industrial problem of India be sought. "The future of Indian industrialism" he says, "must be broad-based on a national revival of basic industries and traditional crafts."

The monograph does not tell us about the industries that flourished in India in the past, about the causes of their decay, and about its consequences anything that has not been told before. But what has been said on all these points lies scattered in a number of books or in rather bulky volumes. The monograph collects all that in one place and in about 150 pages. Herein lies its merit.

With regard to the author's view about the lines along which the industrial development of India should be conducted, there is certainly a good deal to be said in favour of it. The resuscitation of our traditional crafts will, no doubt, go a fairly long way to provide employment for many and relieve pressure on our soil. But what about big industry? Is that to stay side by side with handicrafts, or to live under limitations, or to go? The author does not attempt to answer this question. Perhaps he did not feel called up to do so. We mention it because we think that the relief that will come to India from the revival of handicrafts will depend, in no small measure, upon the extent to which they are able to withstand, or are protected from, the competition of big industry.

G. D. K.

AN OUTLINE OF EUROPEAN ECONOMIC DEVELOPMENT, by ROGER H. SOLTAN.
Longmans, Green & Co., 1935, pp. 307. Price 7/6.

This book traces the economic evolution of Europe from about the year 300 A.D. to the present times. The narrative is neither continuous nor comprehensive. Selecting certain years as landmarks, the author gives a broad survey of Economic Europe about those years, contrasts it with what has gone before and explains the changes that have taken place during the interval. The history of separate states is not given except in so far as it was necessary to point out differences of development or the relation of the development in a particular country to the development in the whole of Europe.

The years that have been selected as landmarks are A.D. 300, 800, 1350, 1600, 1788, 1870 and 1929—1934. The years, the author tells us, have been arbitrarily selected. This is, no doubt, so. But no student of European economic history will deny that they constitute very good viewpoints indeed. About A.D. 300 Imperial Rome had brought about the unification political and economic, of what was then the civilised world; about 800 the Feudal System had been thoroughly established; about 1350 free communications and expanding trade had come about;

about 1600 the Commercial Revolution had taken place and Mercantilism was reigning supreme; about 1780 the first stages of the Industrial Revolution were gone through in Great Britain; about 1870 the Industrial Revolution had been completed in Great Britain and Europe, left behind in the race, was struggling hard to catch up that island kingdom; and finally in 1929—1934 the highly industrialised Europe was, with the rest of the world making every effort "to reorganise her economic life after the disastrous consequences of the Great War."

"The story" to put it in the author's own words "is, therefore, in the main, one of evolution from the simple agricultural economy to a highly technical and complex industrial system." And, it is a story that is very well told indeed. The author brings out very clearly all the important features of the economic life of Europe during the past 1634 years.

The book is well worth study by all who wish to have a general understanding of European Economic history. It is particularly suitable for students offering the subject for one examination or another. It gives in a short space of 307 pages practically all that is essential to know for them. We strongly recommend it to them.

The book is embellished with a number of maps and illustrations and contains at the end a list of books as suggestions for further study.

G. D. K.

TRADE UNIONISM AND TRADE DISPUTES IN INDIA, by Ahmad Mukhtar. M.A., Ph.D. Longmans, Green & Co., 1935, p. 251. Price Rs. 6.

Dr. A. Mukhtar has already won his spurs in the field of Indian Industrial Economics, by his books on "Factory Labour in India" (reviewed on pp. 886-7. Vol. X of the Journal) and "Factory Labour in the Punjab" (his doctorate thesis in London). The book under review is perhaps the fruit of his experience as Assistant Commissioner of Labour in the Bombay Presidency, and it is published at an opportune moment. The Problems of Trade Unionism and Trade Disputes are becoming acute even in our country and the literature on the subject is as yet very meagre.

Dr. A. Mukhtar has attempted to treat of both these topics together in his book, probably because, in India "Trade Unions very often came into being in the course of strikes (p. 84). Three chapters of the book (Chapters II, IV, and V) as well as two sections of Chapter VI refer to the one topic and the rest of it to the other. The arrangement is rather unfortunate, because the treatment of the two topics gets mixed up.

The first and longest chapter is devoted to a historical account of the conflict between Capital and Labour during the last fifty years, which is rather sketchy for the earlier decades and somewhat fuller for the post-war period, thanks to some new publications of the Department of Industries and Labour, of the Government of India. He has appended two interesting tables, to show the distribution of disputes by Provinces and by Industries for the period 1921—33, which reveal that Bombay and Bengal easily lead and the Cotton Mill Industry seems to be peculiarly subject to this evil.

The remedy for trade disputes is dealt with in the same historical manner in Chapter III which concludes with an account of the Trade Dispute Acts of 1929 and 1934 (reproduced in Appendix B). Chapter VI also contains two interesting sections on the same subject, namely, "The Justification of the Strike" (Section I), and "Mediation and Conciliation in Industrial Disputes" (Section III), to which is related Appendix C, containing "The Bombay Trade Disputes Conciliation Act, 1934."

The rest of the book is devoted to Trade Unions, how they grew up very slowly and comparatively late and how they gained legal recognition only in 1926 by the "Indian Trade Unions Act" (reproduced in Appendix A). In Chapter IV there is an interesting account of the Ahmadabad Textile Labour Association founded in 1920 whose beneficent work is in striking contrast with the vagaries and vicissitudes of Labour Unions in Bombay and Madras. Dr. Mukhtar has added some observations on "Trade Union Co-ordination" which remains a desideratum still, "on the place of India in the International Labour Association," "Industrial *versus* Craft unionism" and "Communism and Labour," in Chapter VI.

It would have been better if the two problems had been discussed in two different monographs or at least that they had been treated in two distinct parts of the work. There is no doubt that they are closely connected, but the author does not show clearly the connection nor has he properly integrated the portions dealing with them. We also miss badly a Bibliography and an Index. But the paragraph headings throughout the book make up for the latter deficiency, to some extent.

The book contains a valuable foreword by Mr. J. F. Jennings, the Commissioner for Labour and Registrar of Trade Unions, Bombay, which points out the defects of Indian Union Leaders and Indian Employers and we may well conclude our review by quoting his last sentence: "I can thoroughly recommend the book as a valuable contribution to the study of a subject which is not only of great interest in itself, but is of great importance to Modern India" (p. vii).

N. S. NARASIMHA AYYANGAR.

ECONOMICS AND SOCIOLOGY, by DR. ADOLF LOWE. London: George Allen and Unwin, Ltd., p. 156. Price 5s.

Division of labour or specialisation has made a tremendous progress in every department of life and learning. One thing at a time is the keynote of success as much for the study of a science as for the practice of an art. As a matter of fact, what division of labour is to art analysis is to science. Scientific study of a subject consists entirely in a systematic analysis of its problems. Science is an analysis, art a synthesis. The analytic attitude of men in the sphere of learning has brought about a high degree of specialisation in the study of various branches of knowledge. The search for true causes of phenomena or for fundamental principles has driven researchers backward and backward and separated workers in various fields more and more. The result has been that logical

precision and scientific exactness have been gained at the cost of practical utility. The ultimate aim of the study of all sciences should be, as it originally used to be, to elucidate the problems of practical life and to enable people to regulate their mode of living and place it on a more rational basis. And this is still admittedly the aim of most scientists; but the process of intensive analysis in all directions has been carried so far and the attempt at co-ordination of the findings of all the sciences so consistently neglected that our discoveries have failed to offer us satisfactory solutions to practical problems of life. Our generalisations have been too general—our laws too fundamental—to make close contact with reality a possibility. It is natural, therefore, that co-operation among allied sciences should suggest itself as a necessary step towards making them more realistic. And Dr. Lowe makes this plea in his *Economics and Sociology*.

The reviewer is of the opinion that the aims of sciences and arts are to a certain extent different. Researches in a science are to-day made principally, if not purely, for the sake of knowledge for its own sake; while the development of arts has a more concrete aim. If the progress that is at present being made in the study of various sciences is to contribute in a proportionate measure to the happiness of people at large some way must be devised of making the discoveries in sciences more readily available to arts. This must be considered to be the rationale of any plea for co-operation in sciences.

In the second chapter of his book Dr. Lowe bewails the utter lack of co-operation between economists and sociologists, but finds some comfort in the fact that "under the name of economic sociology a kind of border-line science is developing." Perhaps the hope for the future lies in the development of a number of such border-line sciences. For, though economic laws are perfectly valid under the conditions postulated they are so limited in their applicability to actual conditions of life that they fail to constitute a realistic science of economics. The fault does not merely lie in the nature of the subject-matter. It is generally believed that economic laws are an autonomous body of generalisations above all sociological implications. As a matter of fact, however, all our laws are based on certain political, psychological, legal and sociological constellations. In the simplest and most general laws of economics some sociological implications are involved. There can in reality be no supra-sociological generalisations in economics. It is possible of course to study the economic aspect of an activity perfectly independently of its sociological aspect. But the postulates of economic reasoning are based on certain social conditions. Hence, as the author says in his conclusions, sociology can offer "the specific data which adapt the generalisations of economic theory to the particular conditions of space and time."

The central and to the reviewer the most important point raised in the book relates to the nature of the assumptions of economic theory. The economist must be aware of the precise nature of his assumptions on which his theory is based and as these assumptions are changing not only from time to time but from place to place, he should remember that "any realistic theory of the modern economic system must start from the general premise that it can no longer deal with a constant structure and with

homogeneous processes, but that the economic order under consideration is subject to an evolutionary transformation."

The book, composed of three public lectures delivered at the University of London early last year, is an evidence not only of the deep learning of the author but of his ability to treat difficult problems in an interesting manner.

J. K. MEHTA

INDUSTRY, TRADE AND PEOPLE IN EXETER, 1688—1800, by W. G. HOSKINS. M.Sc. (Econ.). Published by the Manchester University Press. p. 189. Price 9/- net.

This monograph, No. 6, is based on materials collected by the History of Exeter Research Group of the University College of the South-West of England. This series of monographs is aimed to serve as a background for a comprehensive History of Exeter.

The introductory survey points out that in the growth of trade and industry during the thirty years before 1688, her geographical position was of immense help to Exeter. Exeter is at the mouth of an estuary and is well connected by road with most of the towns inland. Hence from the earliest Roman times she was the most important town in the whole of South-Western England. From the middle of the eleventh century, she attained ecclesiastical importance and "gathered to herself all the threads of social and economic life." The peculiar organisation of the south-western Serge Industry also contributed to her importance.

By the beginning of this period the port of Exeter had gained considerable importance and a large number of foreign merchants had settled in her neighbourhood. By the close of the 17th century, Exeter with half a million of population had become the third largest provincial city.

In the next Chapter the industrial history of the town is sketched. The most important industry of the town is the Serge Industry. The author gives a detailed survey of the organization of the Serge industry, tracing from the beginning, from the raw wool to the export of finished goods to Holland, Flanders, Germany and Spain.

In Chapter III, the periods of development and decline of the industry are traced. The serge industry at Exeter finally collapsed during the wars of American Independence and of the French Revolution.

A detailed survey of the people of Exeter including growth of population, number of households classified according to size, and food prices is made.

Three interesting appendices are added which deal with sources, primary authorities, manuscripts, statistics of the woolen trade and of her shipping from 1700 to 1800.

B. V. NARAYANASWAMY

GENERAL WAGE CENSUS. Report issued by the Bombay Labour Office on conditions in the Engineering Industry in the Bombay Presidency. 1935. pp. 179.

The Bombay Labour Office has added to the already long list of its useful publications by issuing an authoritative report on wages, hours of work, and conditions of employment in the Engineering factories in Bombay Presidency. The importance of such authoritative and systematically arranged data cannot be overestimated. The Royal Commission on Labour felt particularly handicapped in its task by the almost complete absence of wage statistics in India. If the work of the Bombay Labour Office, illustrated by this Report, spreads to other industries and provinces a very important gap in our social knowledge will be successfully filled.

The importance of facts is to be appreciated by students for themselves, but there are some features of the present Report which call for a mention. It speaks very highly for the confidence that the Labour Office has created in the minds of employers that even in the absence of a Statistics Act and with a large variety of occupations, all the establishments in the Engineering industry supplied the necessary information to the Labour Office. The authorities at the Office rightly discarded the sampling method and had recourse to that of the more reliable process of complete enumeration, in which the managers of factories so commendably cooperated. The actual facts and figures refer to a selected month in 1934, and cover not only all the engineering establishments, but also all the engineering occupations in non-engineering factories.

The total number of factories covered by the census was 692, of which 221 were engineering concerns, and 471 others. The total number of operatives covered by the report is 75,566 of whom 46,726 belong to the Engineering industry. The average size of these establishments is relatively small, over 65 per cent of the concerns employing less than a hundred workmen. Another notable point with regard to the industry is that it is principally a man's industry, women and children being employed only in a very small proportion. The skilled nature and semi-public character of most of the engineering establishments explain the contrast between the conditions of employment prevalent in them and those in the Textile industry. A system of apprenticeship is regular in the engineering industry, employment is through departmental officers, and labour turnover is very small. Though there is no standardisation either of occupations or of wages, a monthly wage rate is widespread, and special allowances and bonuses are exceptional. In view of these comparatively advanced conditions it is rather surprising that as many as 42 per cent of employees have to wait for more than ten days after the completion of the month to receive their wages. The system of fining affects as many as about 70 per cent of the employees. Though we are told that fines are light on the whole, there is no ground for the belief that in the particular cases where they are inflicted they are other than irksome.

In the engineering concerns provident fund schemes are still beyond the reach of about one-third of the employees and conditions are worse in the case of those employed in engineering occupations in other than engineering industries. Single shifts are the most usual, but there is no

tendency to regulate employment to greater extent than what is compulsory under the law. This proves beyond doubt the educative, as well as the protective, value of all labour legislation. The enjoyment of a paid holiday, or even paid leave, is still the privilege of the few.

The Report contains very elaborate and valuable statistics about rates of wages and actual earnings in the different branches and centres of the industry. No labour worker and student can afford to miss a close study of these. It is remarkable that in many occupations, contrary to expectations and popular beliefs, the average earnings in centres outside Bombay are higher than those in the Provincial metropolis. It is remarkable also that the level of earnings in the Engineering industry is on the whole higher than in other industries. This is, of course, due to the relatively skilled nature of the employment, but the higher mofussil average is at least partially due to the smaller attraction of these centres for skilled labour, which has to be counteracted by slightly higher payment. In Bombay the supply of skilled labour is relatively large, but the mobility of labour being what it is the employers in the mofussil have to pay higher wages.

The authors of the report deserve the warmest thanks of social and economic workers in India. It is to be hoped that their example will be widely copied by other administrations. It is only when such a fuller data is made available that useful lessons can be derived.

D. G. KARVE

REVIEW OF WORLD TRADE, 1933. League of Nations, Geneva, 1934. pp. 82.

Statistical publications of the League of Nations such as the one under review though extremely interesting and highly valuable, offer little scope for critical judgment. A formidable array of figures portraying hard realities and brute facts need nothing more than intelligent interpretation. But the reviewer's task is not to draw inferences from statistical facts but to judge if the inferences so drawn do logically follow from the premises on which they are based. And in this respect the present volume offers hardly any scope to the reviewer.

This, as well as similar publications of the League, have now been acknowledged and reviewed in so many places that any enumeration of its valuable features must necessarily constitute useless repetition. The League of Nations stands for peace and welfare of humanity. It has lofty ideals and laudable purposes. To what extent it has been able to afford proof of its success in the matter of the attainment of these objects one probably cannot say with confidence at this stage of its growth. But to the dispassionate economist the League is Economic Intelligence personified. She may not have eased the hearts of politicians but she certainly has stirred the minds of economists. If and when the League disappears from the field of world politics the economists shall suffer a loss greater than can be now imagined.

But now the volume must be taken in hand for its matter. For, a review is no review unless it brings to the notice of the readers some noteworthy facts contained in the publication.

The gold value of world trade in 1933 fell by 65 per cent over the figure for 1929 and by 10 per cent over that of 1932. But the volume of trade in 1933 shows a decline of only 25 per cent since 1929, and an actual increase of one to two per cent over 1932. The European trade did not share in this increase in the quantum of trade.

During 1933 the volume of trade in food-stuffs fell by 8 per cent whereas that of raw-materials increased by 8 per cent. The distribution of trade in 1933 shows certain changes effected by recent tendencies of commercial policy. Bilateral agreements have considerably reduced the share of triangular trade in world exchanges. The volume of trade in 1933, both import and export, of all the countries included in the report is a little less than one-third of that in 1929. The imports of India fell from 906 million dollars to 286 and the exports from 1168 to 360. We can form some idea of the magnitude of the falls in their relation to other countries in general from the percentages of our imports and exports to the total trade. In 1929 our imports formed 2'54 per cent of the world imports and our exports 4'54 per cent. These figures fell to 2'29 and 3'08 respectively in 1933. This shows that India has suffered more than an average country, so far as only the value figures are concerned.

It may not be out of place to note here that volume of trade is a more important magnitude than value of trade. If the quantum of trade remains the same (both internal and external) the change in value of trade is of little significance except that its effects as far as the distribution of wealth between individuals within a country is concerned might be considerable. For, in such a case a mere reduction of value of trade is only a reflection of the rise in the value of money. But all price-falls are not the *result* of shortage of effective money; they may be the *cause* of such a shortage. Hence, it is very unlikely for the value figure to fall without dragging with it the volume figure also. The present discrepancy between the figures of fall of value and fall of volume is a testimony to what has just been said. The fact that value fell by 65 per cent and volume only by 25 per cent shows that the decline of prices has not been due entirely to the decline of international trade. The collapse of domestic trade has been an important cause. The causes of the collapse of trade in general, of course, cannot be taken up here.

It has already been said that the importance of bilateral trade has vastly increased at the cost of that of triangular trade. The report mentions that bilateral trade (imports and exports balancing in each direction) represents about 70 per cent of the total turnover of the countries considered (22 countries, representing three-fourths of the total trade) and the percentage varies remarkably little from country to country.

The report is packed with information but enough has been said to give the reader, who is not already familiar with this publication, some idea of its precious contents.

J. K. MEHTA.

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Part II

A CLASSIFICATION OF CURRENCY STANDARDS

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I

§ 1. The standard, or object, which functions as the currency unit of a country or with reference to which the value of a currency unit is regulated, represents the currency standard. Thus, the ox was the universally accepted medium of exchange and standard of value in certain primitive communities. The ox was, therefore, the currency unit and the currency standard was the Ox Standard.

The Bank of England note, after September, 1931, being divorced from gold, represented only itself. But as before, it continued to function as the currency unit of the country and the currency standard, therefore, was the Bank of England Note Standard or, as the notes were expressed in sterling, a Sterling Standard. Since notes are printed on paper, such standards are usually, but not quite accurately,¹ described as Paper Standards.

Before the financial crisis of 1931, the currencies of the larger part of the world had their value regulated, by some device or other, with reference to the value of gold. The object of the

¹ The object which represents the currency standard here is not the paper on which the note is printed but a note, *issued by the Bank of England*. It is the authority of the Bank which the note bears on its face, and not the paper, that makes it the country's currency unit. The note is altogether a different entity from the paper and has some value in the market, which the paper as such has not. Not even during the worst days of depreciation of the German paper mark, was the mark note no more in value than the paper, it was printed upon.

standard being gold, the currency standard was the Gold Standard; and the currencies of the world represented unit of gold of a weight and fineness specified in the several respective currency laws. China and Hongkong were exceptions. The Chinese and the Hongkong dollars were silver coins, and were on the silver standard.

II

§ 2. Currency standards, either in operation to-day or that have been in operation at one time or other in the past in some part of the world, can be classed under one or other of two categories: either they are metallic standards or non-metallic standards. The latter comprise of, besides paper currencies, such money media as cattle, tea, tobacco, beer, grain, cowrie-shells, etc., which are known to have been in use in the earlier or simpler types of exchange economies. These being economic goods—with the exception of the last named they are consumable goods—the currency standard they represent may be termed, a Specific Commodity Standard. Thus, when the specific commodity is beer, we have a Beer Standard.

III

§ 3. Paper currencies, are either managed or un-managed. The object of management would determine the nature of the standard. It may be, for instance, in the case of a country which was pushed off the gold standard owing to adverse circumstances (Great Britain), or which voluntarily went off gold for reasons of economic strategy (U.S.A.), stabilisation in terms of gold at a convenient parity, with the intention of an eventual return to gold at that or a near parity. This may be done either by buying and selling gold in unlimited quantities at prices based upon this parity, or, as is more likely and usual (since gold in the reserves of the first type of countries would, in all probability, be inadequate for this purpose) by buying and selling, a currency or gold, at rates similarly determined.

It may not be possible for the country concerned to adopt this device at once. It may take some time before it finds out the gold parity at about which to stabilise. For, it would depend not merely on the requirements of the domestic (national) economy, but also, on what parity, that a competing country or countries may choose to settle down to. There may also be the difficulties of inadequacy of resources to start with. Meanwhile, if the currency is allowed merely to go adrift, or, left to the mercy of speculators and panic-stricken capital, it will add to the difficulties of stabilisation later. The currency authority, therefore, would, sooner than later take to some means of management

to control the exchange rate, with gold countries. It would thus be a managed currency the ultimate object of management being, return to gold.

But once the contemplated parity is reached and securely maintained, by the device of buying and selling (gold or) gold exchanges, at prices falling within the "gold points," the currency would be on a *de facto* gold standard, although *legally* inconvertible. An element of management might still continue, but it will be a management of the more general type, similar to the one that the maintenance of the gold standard is known to involve, in particular, after the war.² But it would no longer be correct to describe it as a managed standard.

§ 4. Great Britain went off the gold standard in September, 1931. For a time, perhaps, the pound sterling was abandoned to its own fate. But, management was soon taken recourse to. It may be said to date with the creation of the Exchange Equalisation Account (July, 1932), if not earlier. Since June, 1935, however, the gold value of sterling has remained more or less stationary at a little over 60 per cent of its original parity. Since then it has not fallen below 60 per cent and the tendency would now seem to be for sterling to rise above, rather than fall below, this level. And the currency authority in Great Britain may not allow it to continue to rise appreciably. If so, the stabilisation parity of sterling would be round about its present gold value and, if sterling is not already under a regime of *de facto* stabilisation, it would seem to be not far removed from it. When this stage is finally reached, however, it would be on a *de facto* gold standard.

Similarly, the French franc remained stationary in terms of gold and gold currencies between December, 1925 and June, 1928³ and during the period was on a *de facto* gold standard. In June, 1928, the *de facto* parity which was steadily maintained during the preceding eighteen months was adopted as the *de jure* rate and France since, has continued on the gold standard. But before December, 1926 there was a period of management and the *franc* was then on a managed standard.

² The gold standard itself, however, may be subjected to management of a different character. The central banks by pursuing an agreed policy, may control and regulate the value of gold to conform to a certain standard. Under the circumstances, convertibility of the currency into gold does not alter the fact that it is subjected to management.

³ The yearly average of the exchange value of the franc in terms of the U. S. dollar for 1927 and 1928, was 3.92 and 3.91 cents, respectively. The monthly average for December, 1926, was 3.95 cents. The par of exchange adopted in June, 1928 was, 3.918 cents=1 franc — Statistical Year Book of the League of Nations 1933-34, p. 203.

During the recent years of currency unsettlement, management in some countries aimed at following, though at some distance, a currency like sterling, the final goal being, return to gold. Many countries in the "sterling-area" are of this type, *e.g.*, Norway, Sweden and Denmark. These followed sterling in the course of its depreciation.

§ 5. But the management of currencies outlined above is the management antecedent to clinging back to the gold standard, and has to be distinguished from the management, involved in the Tabular Standard or the Stabilised Money Standard. The latter aim at stabilising the commodity value of money, and are conceived to replace the gold standard owing to its failure, and perhaps also incapacity, to realise this objective, which, according to the advocates of these standards, should be the goal of all monetary policy.

The Tabular Standard aims at a stable price-level and, therefore, at an approximately stable purchasing power of money. Under it the volume of money in circulation is kept under control and made to vary in the inverse direction to the trend of the price-level. When the index number of prices shows a tendency downwards, more money is injected into the economic system and when the tendency is upwards, it is subjected to "currency bleeding," by open market operations or some other device. The treatment is continued and persisted in until the Bureau of Statistics reports that the results are satisfactory, index numbers having climbed up, or climbed down, as the case may be, to their accredited resting place.

Under the standard, therefore, the value of the currency unit although fluctuating in terms of gold, would remain approximately stationary, in terms of commodities in general. Accordingly, it is also sometimes called, "Commodity Standard."

§ 6. Fisher's scheme for a stabilised dollar (also called the compensated dollar) is generally supposed to be a standard apart from the tabular standard. But, as will be explained below, the two would seem to be identically the same, the difference between them being only one of name. Like the tabular standard, the stabilised dollar represents a managed standard. Also it is not a metallic standard, but a commodity standard.

A stable price-level is the aim of the stabilised dollar. When the index numbers record an upward movement of the price-level, the currency authority will announce a proportionate increase in the gold content of the dollar, and similarly, lower it when the prices show a tendency downwards. The dollar would then be redeemed and bullion converted into dollars, on demand

from the currency authority, at the announced rate. The currency in circulation, under the standard, for obvious reasons, will consist of only paper, and no dollar coins. The dollar thus, would cease to be a fixed quantity of gold of variable purchasing power, but would become instead, a money medium with a stationary purchasing power but a variable quantity of gold.

The idea underlying the scheme is that a raising of the gold content of the dollar or a lowering of it would correspondingly diminish or increase the volume of money in circulation, to cause a corrective to the rising tendency, in the one case, and the falling tendency, in the other, of the price-level, from the ideal. The stabilised money standard and the tabular standard, thus, depend for their successful functioning on the faithfulness in practice of the quantity theory of money. We are not concerned, however, with how far the several currency standards reviewed here would operate satisfactorily if an attempt were made to put them all into force. Our interest is merely to attempt their classification.

§ 7. How does the stabilised money standard differ from the tabular standard? The objective of both the standards is a stable price-level, as represented by the index numbers. This is to be realised, in the one case, by the currency authority either injecting more money into circulation or withdrawing a part of it; and in the other, by announcing an alteration in the gold equivalent of the dollar, that is to say, an alteration in the dollar price of gold.

A mere announcement to the effect, however, would in itself neither raise nor lower the gold value of the dollar. This would be determined wholly by the market conditions, and no Government however mighty can alter the price of a commodity by expressing a wish in that regard. The representatives of the British Parliament in India, for instance, are fully aware of the futility of the device. The Indian Coinage (Amendment) Act of 1921 laid down that the price of a sovereign be Rs. 10. But the edict was never obeyed: the price of gold persisted above this level and the exchange value of the rupee remained appreciably below 2 s. gold. To take another illustration from recent monetary experience, the Exchange Stabilisation Committee of China, during the period immediately preceding the abandonment of the silver standard in November, 1935, adopted $20\frac{2}{3}\frac{3}{4}$ d. as its "official" rate for the dollar. But the market rate remained at $15\frac{1}{4}$ d.⁴

⁴ The Economist, November 1935, p. 860.

The announcement of the currency authority, therefore, lowering the price of gold (*i.e.*, raising the gold value of the dollar) when it tends to go up with the price-level of the other commodities or raising the price of gold (*i.e.*, lowering the gold value of the dollar) when it tends to go down with the general price-level, to be realised, has to be followed by direct action. That is to say, the currency authority must, as certainly as under the tabular standard, introduce more money into circulation to effect the announced rise in the gold value of the dollar (lower the general price-level to normal) in the first case, and withdraw from circulation a part of the money, to effect a fall in the gold value of the dollar (rise in the general price-level to normal), in the other. Otherwise the announcement would remain a dead letter and the general price-level as well as the price of gold (the inverse of the gold value of a dollar) would depend wholly upon market conditions.

Lowering of the number of grains of gold represented by a dollar, would enable the currency authority to issue more currency, the gold reserves being now worth more in dollars, and a raising of it, by lowering the dollar value of the reserves, might compel a contraction of note issue. Also, an inflow of gold into the reserves would add a larger number of dollars to currency supply than previously, in the first case, and a smaller, in the second. In any case, the expansion or contraction of currency to be effected in order to maintain the price-level stable, must be *identically the same* under Fisher's scheme as under a tabular standard, and the expansion or contraction, in both the cases, has to be effected by the currency authority. Thus, the announcement, from time to time, of variations in the gold value of the dollar under the stabilised money standard and the absence of such an announcement under the tabular standard makes no difference in the processes involved in keeping the price-level stable. The announcement does not render the two standards different from one another.

For, under the tabular standard also, the value of the currency unit in terms of gold, would be subject to *exactly* the same variations as under the stabilised standard. The price of gold (and, therefore, the gold value of the currency unit) would be affected in identically the same manner by the *same* currency policy, although executed under two different names. Only, Fisher's scheme involves an *official announcement* of the variation *in advance* of its realisation while the tabular standard does not involve it at all. Under the latter standard, the varying quantity of gold that the currency unit would represent, can be realised

from the bullion market, with no greater advantage or disadvantage, than when it is realised from the currency authority under the stabilised standard. The central bank, in the one case, besides acting as the currency authority, would also deal in gold bullion, buying and selling it on demand at prices varying in accordance with the currency policy for the time being in force. In the other, the latter function is abandoned, and perhaps rightly so, to the bullion market.

The tabular standard when applied to the U.S.A., for instance, would not become an altogether different entity, if the Federal Reserve System, under it is allowed to tack on to it a bullion department, buying and selling gold at prices depending upon market conditions and notified from time to time. The addition of one more department to the existing ones merely to take over the functions, normally performed by the bullion market does not alter the character of the currency standard. If so, merely because Fisher's scheme involves wholly unnecessary dealings in bullion, the stabilised dollar standard does not become different from the tabular standard. In their *modus operandi* and objective, the two are identical. And in respect of the limitations that may confront their operation in practice, they are on a par. If there is any difference between them, it would seem to be similar to the one between half-a-dozen and the reciprocal of one-upon-six.

§ 8. Although gold has been made to figure rather prominently in the picture, it is obvious that the stabilised dollar is not any variant of the gold standard. Under a gold standard the currency unit must have a fixed gold value and since the stabilised dollar represents a variable quantity of gold it cannot be given that description. No doubt it always has some gold equivalent into which it can be converted, but that is also of a currency under the tabular standard or any paper standard for that matter. Even the German paper mark or the Russian paper rouble in the worst days of their depreciation could buy some gold, however diminutive in quantity. For that reason, one would not regard them as being on a gold standard.

§ 9. The Paper Exchange Standard is another type of the paper standard. Under it the local currency has its value fixed, not in terms of gold or a currency on gold, but in terms of a currency, itself on the paper standard. The currency authority maintains this relationship by buying and selling the foreign currency concerned, in unlimited quantities, at rates based upon a fixed rate, called the "par" rate. A currency on this standard is managed or unmanaged, according as which of these two

descriptions holds true of the currency it is linked to. For, by virtue of the link, the characteristics of the one are passed on to the other.

The Indian rupee, since the 24th September, 1931, is an example of a paper exchange standard. On September 21, 1931, the pound sterling had abandoned the gold standard and by an Ordinance (Ordinance VII of 1931) published on the 24th September, the pre-existing rupee-sterling link was continued.⁵ From this date onwards, therefore, the value of the rupee was fixed in terms of the paper sterling and the rupee was on a paper exchange standard. It was a managed standard in so far as sterling was a managed currency and at present with sterling the rupee is on virtually a *de facto* gold standard.

Among other examples of the paper exchange standard may be mentioned the New Zealand pound, since February, 1933, the Australian pound, since September, 1931, and the South African pound, since September, 1933, all of them being linked to the paper sterling.

§ 10. Another variant of the paper standard is the Un-managed Paper Standard. Under it the currency is abandoned to its own fate, no effort being made either to stabilise the price-level, or the exchanges. The German paper mark before stabilisation in December, 1923, was on such a standard. The printing press was kept busy, prices rose to astronomical figures and the exchange value of the mark came down to infinitesimal fractions. In course of time the situation had gone so far beyond repair that the paper mark was finally abandoned, first for the renten-mark and later for the Reichs-mark (October, 1924).

§ 11. Intermediate between managed paper standards and metallic standards falls, the Gold Standard *cum* Tabular Standard. This scheme allows for the simultaneous functioning of both the standards. But their sphere of operation is to remain separate. The tabular standard is invoked only to serve as a standard of deferred payments. Otherwise, gold would continue to fulfil its monetary office.

The tabular standard is used for purposes of deferred payments, owing to the failure of gold to remain stationary in value, in terms of commodities and the consequent injustices involved as between debtors and creditors, in respect of transactions involving a period of time. Under this scheme, therefore, monetary obligations would be discharged not in the nominal

⁵ See my article : Exports of gold from India : an analysis of the Government's currency policy, in the Indian Journal of Economics, July, 1935, p. 15 et seq.

sum of money to which they referred, but by payment of that sum of money whose commodity value at the time when the liability was discharged was equal to the commodity value of the borrowed sum of money at the time when the liability was incurred. Thus, if the general index number rose from 100 to 110, then the debtor who had borrowed Rs. 100, when the index number was 100, would pay back Rs. 110 and not merely Rs. 100. Conversely, if the index number fell from 110 to 90 the debtor would pay back Rs. 90 for every Rs. 100 that he had borrowed.

IV

§ 12. Metallic standards are of three types: bimetallic, limping and monometallic. Under the Bimetallic Standard both gold and silver are unlimited legal tender, and the mint is open to both the metals. Gold and silver alike are minted into coins of similar names and denominations: whether it be silver or gold that is presented to the mint, they are converted into equivalent "dollars" or "francs" at a fixed rate, according as the mint was American or French. Silver dollars or francs, and gold dollars or francs, irrespective of the metal they may be composed of, were alike full legal tender.

This system was traditional in Europe for many centuries. It was adopted by the United States in 1792, in its complete form. Silver bullion was minted into dollars, each dollar containing 416 grains of standard silver, $\frac{892.4}{1000}$ fine, i.e., $371\frac{1}{4}$ grains of fine silver; and gold could be minted into, also dollars, each dollar containing 27 grains of standard gold, $\frac{916.86}{1000}$ fine, i.e., 24.75 grains of fine gold.⁶ The mints were open to the public.

Under the bimetallic system the U.S. dollar, thus, had its value linked not merely to that one of the two metals but to that of both. Both gold and silver, however, do not remain in circulation simultaneously under the double standard. By the operation of Gresham's law the metal that gets over-valued at the mint replaces the other in circulation, the process of replacement being very rapid if the margin of over-valuation was not slight.

⁶ The gold and the silver content of the U.S. dollar and their standard fineness were subjected to slight alterations in 1834 and 1837. In the latter year the metallic content of the gold dollar was fixed at 25.8 grains of standard gold, 9/10 fine, i.e., 23.22 grains of fine gold and that of the silver dollar at $412\frac{1}{2}$ grains of standard silver, 9/10 fine, i.e., $371\frac{1}{4}$ grains of fine silver.

The mint ratio⁷ in the U.S.A., for instance, was 15·988: 1 (after 1837). After 1850, following the unexampled output of gold from the mines of Australia and California the gold price of silver rose and the market ratio between the two metals fell below the mint ratio, and, as a consequence, gold, the over-valued metal of the two, was alone presented to mint in the bimetallist countries. Silver disappeared from circulation and was exported.

Before 1850 the reverse was the case. The market ratio between the two metals was then higher than the mint ratio, the gold price of silver being lower than what it was after 1850. As a result, silver alone remained in circulation. Gold was not presented to the mints. It was more valuable as bullion and was sold as such.

Thus, the fluctuation of the market ratio of the two metals around the mint ratio, keeps only one of the two metals actually in circulation, as has been amply demonstrated by the experience of the countries that had adopted this currency system. In practice bimetallism approximated to monometallism. It was either the gold standard or the silver standard according as which of the two metals got over-valued at the mint. But, owing to the mint being open to both the metals there was always the danger of the one standard, for the time being in force, being replaced by the other, when the order of over-valuation of the two metals got reversed. Thus the U. S. dollar can be said to have been on a silver standard before 1850 and on a gold standard after 1850. When it was on the silver standard the dollar was equal in value to 371½ grains of fine silver, and when it was on the gold standard, it was equal in value to 23·22 grains of fine gold.⁸ It would appear, therefore, more correct to describe it as a bimetallic system with a monometallic standard, alternating between gold and silver, in the event of the market ratio fluctuating on both sides of the mint ratio, but otherwise, either a gold standard, or a silver standard, according as which metal gets over-valued at the mint.

§ 13. During the latter part of the 19th century forces gathered strength against bimetallism and by 1878, all the

⁷ The term mint ratio refers to the ratio between the weights of fine gold and fine silver contained in the gold and the silver coins, of the same denomination, produced at the mint. Since both gold and silver coins are alike unlimited legal tender, this ratio which is fixed, fixes a price (the mint-price) between the two metals: the number of dollars that an ounce of gold can be coined into at the U.S. mint represents the U.S. mint-price of gold and the number of dollars that an ounce of silver can be coined into, represents the mint-price of silver.

⁸ See footnote 6.

countries that were on it had abandoned it. Germany, (previously on silver), adopted the gold standard while reorganising her currency system in 1871. The Latin Monetary Union, formed in 1865, did not take long to show signs of disintegration. In 1873, France, not wishing to lose her gold, which was being threatened of replacement by silver, under the familiar mechanism of the bimetallic system, stopped the free coinage of silver. Belgium followed her in the same year. Both these countries, each acting alone, limited the amount of five-franc pieces (*i.e.*, of full legal tender silver) which would be coined at the mint. In 1874, the Monetary Union, by a special agreement, prescribed the same policy for its members, the amount of five-franc pieces to be coined being apportioned among them. This was followed by a complete cessation of the coinage of five-franc pieces in 1878 which marked the final burial of bimetallism.

The change, though fundamental in character, did not alter the superficial appearance of the metallic circulation in these countries. Gold and silver coins continued to circulate side by side and maintained between them a ratio that was assigned to them at the mint. The silver five-franc pieces, as before, continued as legal tender without limit and therefore were as good as gold coins. Their value was kept on a par with the latter (*i.e.*, much above their bullion value) by a limitation of their supply. To this situation in France and the Latin Monetary Union, the name "limping standard" has been given. It was not established by design but was reached through a succession of tentative steps. Perhaps it was an inevitable stage in the transition from bimetallism to a gold standard.⁹

⁹ For, when France, for instance, wished to prevent silver replacing gold in circulation, she had perhaps three alternative ways of doing it: (1) close the mint to silver, (2) levy an import duty on silver to more than neutralise the difference between the market-price and the mint-price of silver and (3) levy an export duty on gold of like amount.

The third alternative had to be discarded, since an export duty on gold would have amounted to abandonment of the gold standard which the country wished to adopt. Also, it was difficult to avoid gold being smuggled out. The second alternative was likewise unsatisfactory. Apart from the difficulty of preventing silver being smuggled in, that would have meant replacement of gold to the extent, the stocks of silver within the country, permitted.

None of these problems, however, arise by closing the mint to silver. Also, since a gold standard was the objective this had to be done, sooner or later. To withdraw silver from circulation at once would have involved so much expense. The best thing to do under the circumstances, therefore, was to allow silver already minted, to continue in circulation side by side with gold, *i.e.*, adopt the "limping standard."

§ 14. But, apart from this superficial similarity with bimetallism the limping standard has little in common with it. Actually, it is little different from the gold standard. The value of the currency unit, under it, is linked to that of gold. In France, for instance, after the closing of the mint to silver to the public, in 1873, the value of a franc was equal to that of 4.48 grains of fine gold, the five-franc gold having a metallic content of 22.4 grains of fine gold. And the gold value of the silver five-franc piece was on a par with that of the gold coin of the same denomination although as bullion it was worth much less.

In respect of internal payments the presence of the silver coins did not render the limping standard any different from a gold standard, even as the presence of paper currency or fractional silver in the gold standard countries today does not alter the character of the currency standard. Five-franc silver coins, like the notes of the Bank of France, were only tokens, but printed on silver, with a face value equal to that of the gold coins, and like the notes were unlimited legal tender.

But in respect of international payments the limping standard has in it an element of uncertainty. When the Bank of France considered its gold reserves inadequate, it used to charge, up to 1897, a premium on gold bullion: this was exacted by offering the holders of notes five-franc pieces in the alternative. The premium charged, on occasions, was as high as 7 or 8 p.c. This practice, however, was abandoned in that year. Even so, the five-franc pieces being legally inconvertible (unlike the bank notes) there was no guarantee that the Bank of France would always convert them into gold, franc for franc. On occasions, when exchanges touched the gold export point, in the event of the bank failing to stick to its policy, gold (coin or bullion) would command a premium in the market in terms of silver coins. In such cases, the cost of remittances abroad, expressed in domestic currency would, by the extent of the premium paid, be higher under the limping standard than under a gold standard. Also, the exchange rate under the circumstances would fall below the gold export point, proper to a gold standard, without gold leaving the country, *i.e.*, the difference between the gold points under a limping standard may be wider than under a gold standard.

But if the bank always gave gold in exchange for legal tender silver coins, the cost of remittances abroad would be identical and the difference between the two standards would then disappear. Nevertheless, the absence of the legal guarantee, gave rise to an element of risk, however slight or remote, and one

may not for that reason place the pre-war French system on an absolute par with a direct gold standard. By the Law of Monetary Reform, June, 1928, however, France finally abandoned the limping standard by withdrawing the legal tender quality of the five-franc silver coins.

V

§ 15. The gold standard and the silver standard are the two monometallic standards that have been in use in the civilised world. The only part of the world that is today on the silver standard is, perhaps, Manchukuo, and it may not take long before this latest addition to the Japanese Empire is placed on a yen-exchange standard. Before the defection of Germany from silver in 1871, considerable portions of the earth were under the regime of the silver standard. Great Britain and Portugal alone were on the gold standard. The rest of the world, excluding bimetallic countries, was on silver. This comprised of the East, South America and the non-bimetallic Europe. But during the fifty years preceding the outbreak of the war, all these countries, with a few exceptions, changed over to gold. The last to leave the fold of silver were China and Hongkong. China finally abandoned silver on November 3, 1935 and Hongkong left it five days later, on November 8, 1935.

But, in October, 1934, China had imposed a variable export duty on silver. This was so adjusted as to keep the Chinese dollar steady in terms of sterling and gold, and to check its artificial appreciation, while at the same time, preventing a "drain" of silver out of the country, following the American silver purchase policy which led to a rise in the gold price of silver. Therefore, although the formal abandonment of the standard was made in November, 1935, China can be said to have gone off a *free* silver standard from the date of enforcement of the silver export duty.

In November, 1935, however, the abandonment of silver was complete. The notes issued by the three Government banks¹⁰ (to be replaced in due course by the notes of the Central Reserve Bank of China) were made legal tender; silver was compulsorily nationalised and withdrawn from circulation, payment in terms of it (in coin or bullion) being penalised; the export duty on silver was raised to 65 per cent from 14½ per cent; and the exchange value of the Chinese dollar was pegged at 14½d. a

¹⁰ The Central Bank of China, the Bank of China and the Bank of Communications.

dollar, the Government undertaking to buy and sell exchanges in unlimited quantities at rates based upon this par. Hongkong too had adopted the same parity. And to the extent sterling today can be said to be on a *de facto* gold standard, these two countries have adopted a *de facto* indirect gold standard.

VI

§ 16. The gold standard is either a Direct Gold Standard or an Indirect Gold Standard, according as whether the currency unit is linked directly to gold or *via* a foreign currency or currencies on gold. Direct gold standards are of two types: a gold bullion standard and a gold currency standard.

Under a gold currency standard, gold coins are in active circulation and represent the standard coin of the country, the value of the currency unit depending upon their fine gold content. The mints are open to the public for unrestricted coinage of gold and the issue of paper money is so regulated as to conform in value to that of the gold coin and is redeemable into it, on demand, at the currency authority.

A gold currency standard, in the sense of gold coins being the exclusive money in circulation, apart from fractional money, has never existed in practice unless, perhaps, in the ancient world. It has not existed, even in the sense of its being the dominant form of currency, except in Egypt before the war. The more usual type has been, gold coins forming a comparatively minor proportion of the total circulation, which largely consisted of paper money. This has been so in Great Britain, even after the passage of the Act of 1826, which prohibited the issue of notes below the denomination of £5, in England and Wales. This restriction perhaps stimulated more the use of cheque currency than, gold coins.¹¹ The presence of paper money side by side with gold coins, however, should not make any difference in the nature of the standard, if no premium was allowed to appear on gold in terms of legal tender paper. This depended upon the proper regulation of currency issue, and the free and unrestricted convertibility of notes into coins, with the freedom to melt, or export them.

§ 17. The situation in the ancient world and the question of whether it was silver or gold that preceded the other in its use for monetary purposes, apart, referring to the history of the last couple of centuries or so, Great Britain was perhaps the first country to adopt a gold currency standard. She did so, maybe

¹¹ See English and Continental Banking by P. Barrett Whale, Lecture I, in *Journal of the Institute of Bankers*, April, 1931.

in a fit of absence of mind, by about the middle of the 18th century, assisted by the fact that the mint ratio, as was, pointed out by Newton, who was then the Mint-Master, over-valued gold in England, it being higher than on the continent of Europe. Silver, which, as a consequence, flowed out of the country, mainly to the East and partly to the Continent, was replaced by gold. The change in the standard thus caused, was accepted and stuck to by the country and at a parity which was maintained, ignoring intervals of suspension of the gold standard, up to September, 1931. But it was only in 1819,¹² by an Act of parliament, that it was adopted in law.

Thus, while the rest of the world was either on a silver or a bimetallic standard, Great Britain adhered to gold monometallism. And in course of time, owing perhaps to her continued prosperity and financial leadership of the world, conventional ideas of a sound currency system came to be based upon the British practice. Measures for currency reform, during the 19th century drew upon the British model.

The movement towards the gold standard during the century began with Germany's abandonment of silver, for gold, in 1871. Till then Great Britain and Portugal were the only countries on it. Germany was followed by Scandinavia. In 1873, France, to be followed by Belgium and later in 1874, by agreement, the other countries of the Latin Monetary Union (Switzerland, Italy and Greece), first limited, and at the conference of the Union in 1878, stopped altogether, never to be resumed again, the mintage of the silver five-franc pieces, thus departing from bimetallicism and paving the way for the adoption of the gold standard. In 1876, Russia closed her mint to the free coinage of silver and following a period of *de facto* stabilisation in terms of gold, introduced a gold currency in 1897, in which year Japan, also, decided to return to gold, on the basis of a new gold yen, with half the gold value of the old yen which was abandoned in 1886. In 1892, Austria-Hungary reformed her currency and introduced, the gold crown. U.S.A., after closing the mints to silver, in 1873, came first to a "limping standard" and in 1900, by the American Gold Standard Act, adopted the gold currency standard, with the gold dollar of the 1837 parity.

All these countries, while reorganising their currencies, built, or attempted to build, on the model of Great Britain. They

¹² The Act of 1819 laid down that cash payments, which were suspended in 1797, be resumed on the 1st May, 1823. The Bank of England anticipated this date, by resuming payments two years earlier, on the 1st May, 1821.

kept an open mint, and introduced, a gold coin into circulation. Many, like Austria-Hungary, Russia and Italy, however, were probably disappointed. For, their resemblance to the British system, at best was merely superficial, and to maintain gold parity they had to take recourse to devices appropriate only to an exchange standard.

§ 18. Under the gold bullion standard, paper notes constitute the currency in circulation, and they are not redeemable into gold coins. The value of the currency unit, however, is stabilised in terms of gold, by the conversion of notes, instead of into coins, into gold bullion. Gold coins, therefore, need not remain in circulation and accordingly, the mints are closed to the coinage of gold. Additional supplies of currency are obtained by the sale of gold to the currency authority, which under such a standard, is obliged by law, to buy and to sell, gold bullion, in unlimited quantities, at fixed prices. This situation gives the standard, its name. As under a gold currency standard, a proper regulation of currency issue, unrestricted convertibility, and the freedom to export gold, would prevent a premium on gold.

A monetary system of this type, was outlined by Ricardo, in 1816, during the bullionist controversy. Adam Smith, expounded the advantages of substituting expensive media of circulation of the precious metals, by paper notes: they were likened to the benefits that would accrue to society, if a waggon way in the air could be constructed as a means of transport, which would allow the conversion of a large part of the roads into fields and meadows. Ricardo, elaborated this point of view, and advocated what he considered to be an ideal monetary system, under which precious metal money would be entirely eliminated from domestic circulation, which should consist of only paper notes. These would be converted, not into coins, but only into bullion, at a fixed rate.

§ 19. But it was not until, 1925, that the gold bullion standard, was adopted in practice. By the Gold Standard Act, of that year, Great Britain, while returning to gold, accepted Ricardo's recommendations. The mint was closed to the public. But the idea of the gold coins was not entirely thrown over-board. Gold could still be coined but only on the request of the Bank of England. Also, the legal tender quality of the sovereign was not withdrawn. The Act, however, made it obligatory on the part of the Bank of England, to buy and to sell, gold, in unlimited quantities at £3-17-9 and £3-17-10½, an ounce of standard fineness, respectively. It was no longer obliged to redeem notes, into sovereigns.

As during the 19th century, the British system, it would appear, is now being accepted as the new currency model. France, when coming back to gold *de jure*, in June, 1928, adopted a gold bullion standard. The Bank of France was required to redeem notes, into gold bullion at the rate of 65·5 milligrams of gold $\frac{9}{10}$ fine, per franc. It was also required to convert bullion into notes. But, as in the case of Great Britain, the mint though closed to the public, was not closed to the central bank. Also, the French law provides for the mints being thrown open to the public by an Order in Council.

The United States, while devaluing the dollar, at 59·06 per cent of its old parity, on the 31st January, 1936, has taken to the device of the bullion standard.¹³ It can be confidently hoped, therefore, that a gold currency standard, is now, a thing of the past. The right of mintage conferred on the central banks in Great Britain and France and the provision, that by an Order in Council the gates of the mints might be thrown open to the public, in the latter country, will in due course lapse by desuetude. If they were not conceived as a safety outlet to the excess inflow of gold into the country or an excess accumulation of it in the reserves, they represent merely the conservative instinct, which is averse to a sudden and drastic break with the past. Such of the countries as would return to a direct gold standard in preference to an indirect one would, unless they have a very perverse mentality, no doubt adopt a gold bullion standard.

§ 20. There are three main versions of an indirect gold standard: a Gold Exchange Standard, a Specified Gold Currency Exchange Standard and a Dependent Currency Exchange Standard.

Under a theoretically perfect gold exchange standard, as conceived in this classification, the local currency should be convertible into all currencies on gold, on demand, the option of conversion into any particular gold currency, or currencies, resting with the public and not with the currency authority. The latter has to maintain an adequate reserve of all the gold currencies that may be demanded. Also, the local currency should be obtainable, in exchange for, any of the gold currencies. Exchange fluctuations of the country, then, in relation to all countries on gold, would keep (as will be seen below) within

¹³ It was announced in the proclamation of the President that the U.S. Treasury would buy gold at 35 dollars an ounce and sell it at 35·875 dollars in unlimited quantities, the difference between the two prices representing "handling charges" of gold.

identically the same limits as those under a direct gold standard. And, in respect of international payments (the limits of their cost in terms of the local currency) to countries on the gold standard (or countries whose currency authorities exchange gold for currency at a fixed rate) there would be no difference between a gold exchange standard, as defined above, and a direct gold standard.¹⁴

If, for instance, India were on a Gold Exchange Standard the rupee would be convertible into all currencies on gold at a rate corresponding to the "gold export point" in each case. Thus, if capital letters A, B, C, etc., represented countries on gold and the expenses of transporting gold in bulk from India to these countries worked out in d. per 18d. gold (8·47512 grs. of fine gold) a. pence, b. pence, c. pence etc., then, the rupee would be convertible at the currency authority in terms of currencies of countries A, B, C, etc., (all of which for the sake of convenience we shall express in terms of sterling) at the rate of $(18-a)d.$, $(18-b)d.$, $(18-c)d.$, etc. That is to say, the rupee exchanges in terms of these currencies would fluctuate between the limits, $(18 \pm a)d.$, $(18 \pm b)d.$, $(18 \pm c)d.$,¹⁵ etc. It will be noted that these would also be the limits of fluctuation of the rupee exchanges if the rupee were on a Direct Gold Standard. Which means, under a direct gold standard and under a gold exchange standard the limits of the cost of remittances in terms of rupees to countries A, B, C, etc., of a stated sum expressed in the currencies of the latter would be identical.

In practice a standard of this type does not exist. There have only been one or two instances of countries whose monetary laws empower their respective central banks to redeem the local currency into gold exchanges.¹⁶ In such cases, while the law does not specify the gold currencies to be redeemed into the central banks have made available only one or two currencies. In respect of remittances to countries whose currencies are freely available at the currency authority the situation, therefore, would be the same as under a gold exchange standard or a direct gold standard. But it would be different in relation to the rest of the world. If, for instance, the Indian Currency Act, provided for

¹⁴ The limits of the cost of payment to countries off the gold standard would not be identical under the two standards, since under the gold exchange standard, the local currency is not convertible into gold, but only into gold exchanges.

¹⁵ It has been presumed that the expenses of transporting gold between India on the one hand and countries A, B, C, etc., respectively on the other, both ways, is the same.

¹⁶ E.g., Italy and Belgium. See Legislation on gold, (League of Nations).

the redemption of the rupee into currencies of A, B, and C, but not that of the remaining gold countries then, rupee exchanges in relation to countries, D, E, F, etc., may fall to a lower limit of $(18 - \overline{a+d'})d.$, $(18 - \overline{a+e'})d.$, $(18 - \overline{a+f'})d.$, etc., where d' , e' , f' , etc., represent the expenses of transporting gold in bulk from country A to countries D, E, F,¹⁷ etc. That is to say, under such a currency system the rupee might depreciate in terms of currencies of D, E, F, etc., by $(a + d' - d)d.$, $(a + e' - e)d.$, $(a + f' - f)d.$, etc., respectively less than under a gold exchange standard. To that extent, therefore, the limits of the cost of making remittances to countries D, E, F, etc., would be higher under the system as compared to the limits under a gold exchange standard.

§ 21. Examples of a specified gold currency exchange standard are many. The Indian rupee between April, 1927, and September, 1931, provides an illustration.¹⁸ Under it the local currency is convertible into one specified currency on gold. By the Indian Currency Act, 1927, the rupee was convertible into sterling (a currency on gold) on the basis of a par rate of 18d. a rupee. The specified currency thus was sterling and the Indian standard was called sterling exchange standard.

In respect of the limits of the cost of international payments there is a marked difference between a specified gold currency exchange standard and a gold exchange standard. Under a sterling exchange standard, for instance, the lower limits of the rupee exchanges with countries A, B, C, etc., would be $(18 - \overline{x+a'})d.$, $(18 - \overline{x+b'})d.$, $(18 - \overline{x+c'})d.$ etc., where x represents the expenses of transporting gold in bulk from India to London worked out in d. per 18d. gold, and a' pence, b' pence, c' pence, etc., represent respectively the corresponding expenses of transporting gold from England to countries A, B, C, etc. That is to say, foreign remittances to these countries might cost $(x + a' - a)d.$, $(x + b' - b)d.$, $(x + c' - c)d.$, etc., more per rupee under the Sterling Exchange Standard than under the gold exchange standard or a direct gold standard.

§ 22. A specified gold currency exchange standard, as outlined above, is usually referred to as a gold exchange standard. Since the domestic currency under it, however, is convertible into

¹⁷ In this it has been presumed that country A is nearest to countries D, E, F, etc., as compared to B or C.

¹⁸ The Philippine Peso, Notes of the Bank of Belgian Congo, and East African Currency Notes (all before September, 1931) are among other examples of a Specified Gold Currency Exchange Standard. See Legislation on Gold (League of Nations).

only one particular foreign currency, and not into any other gold exchanges, this description would not seem to be appropriate. Also, deviations from parity of the exchange value of the currency under it, though cloaked by the fact that the exchange market in such cases does not usually quote rates in terms of currencies other than the one it is linked to, are wider, in some cases, appreciably, than under a gold exchange standard. This gives rise to a corresponding difference in the limits of the cost of international payments, as pointed out above, under the two standards.

Perhaps the chief function of an international standard, like the gold standard, is to provide the means of making payments to, and receiving payments from abroad at rates, if not absolutely fixed, ascertainable in advance, with more or less precision, with the minimum margin of deviations from a certain norm. Since international movement of goods and capital involves contract, covering a period of time, they are facilitated by a sound and properly functioning standard of this type, even as they are retarded by the absence of it. If, therefore, there arises a difference in the cost of remittances abroad, under one standard compared with another, it would not be correct to regard them as identical. The difference would justify a distinction being drawn between them. Since a gold exchange standard and a specified gold currency exchange standard, present differences of this type, they should be considered as different variants of the gold standard.

§ 23. Examples of a dependent currency exchange standard are not many. The Ceylon rupee, however, is an illustration. Under it the local currency is linked to another currency, not on a direct gold standard, but on an indirect one. That is to say, it is linked to a currency, itself linked to another currency on a direct gold standard. Thus, the Ceylon rupee is maintained on a par with the Indian rupee which is dependent for its gold value on its sterling equivalent. The Ceylon rupee, therefore, *via* the Indian rupee, is linked to sterling and, therefore, to gold. The Ceylon currency authority converts its notes into Indian rupee coins, on demand; it does not deal, either in sterling or in gold. Sterling can be had only from the Indian currency authority.

Under such a currency system, foreign exchanges would deviate wider than under a sterling exchange standard or a gold exchange standard, and the limits of the cost of remittances abroad would likewise be wider also. Hence it merits a separate place in the classification of indirect gold standards. When the dependent currency it is linked to, goes off the gold standard, the

domestic currency also does it automatically. The Ceylon rupee, for instance, being on the Indian rupee exchange standard, went off gold with the Indian rupee and sterling in September, 1931. But it still continued its name. Only, it was now, not a variant of the gold standard.

§ 24. The classification of the currency standards, attempted above, we may bring together in the form of a table as follows:—

CURRENCY STANDARDS.

Metallic Standards.

Non-metallic Standards.

Paper Standards.

A Specific Commodity Standard (*e.g.*, the ox, grain, tea, tobacco, beer, cowrie-shells, etc., which are known to have been in use, in the past, as money media).

Un-managed Paper Standard (*e.g.*, the German paper mark before stabilisation in December, 1923).

Managed Paper Standard.

Paper Exchange Standard (*e.g.*, the Indian rupee after 24th September, 1931).

Management preceding and preparatory to, stabilisation in terms of gold (*e.g.*, the pound sterling between September, 1931 and June, 1935).

Management with a view to realising a superior currency ideal, other than the gold standard, for instance, a currency with a stable purchasing power (*e.g.*, the Tabular Standard and The Stabilised Dollar Standard of Fisher)*.

Bimetallic Standard (*e.g.*, countries of the Latin Monetary Union before 1878 and U.S.A. after 1792).

France and Belgium after 1879 and the other countries of the Latin Monetary Union after 1878).

Monometallic Standards.

Gold Standard.*

Silver Standard (*e.g.*, China and Hongkong before November, 1935; India before 1893; and Germany before 1871).

Indirect Gold Standard.

Direct Gold Standard.

Gold Exchange Standard (*e.g.*?)

A Specified Gold Currency Exchange Standard (*e.g.*, the Indian rupee before September, 1931).

A Dependent Currency Exchange Standard (*e.g.*, the Ceylon rupee before September, 1931).

Gold Currency Standard (*e.g.*, Great Britain and Egypt before the war).

Bullion Standard (*e.g.*, Great Britain after 1925 and France after 1928).

*Gold Standard cum Tabular Standard. (Under this, Tabular Standard is used for deferred payments and Gold Standard for all other purposes).

THE OPTIMUM IN RECENT POPULATION THEORIES

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The concept of the Optimum marks a definite step in the advance of economic theory. There is hardly any branch of economic thought which has not gained impetus by it. In the structure of industry as well as in public finance the optimum unit is sought to be defined, if not with the professed view of shaping policies, at least, to clear the cobwebs of economic thinking. Nowhere is the importance of the concept more dominant than in the study of population. Various students of population problems agree that without the concept of the optimum generalisations about growth and density, on the one hand, and resources on the other, partake of the nature of individual and collective wish-fulfilment. If we are to exclude subjective considerations, like religious and political necessities and bring the subject of economic behaviour to the level of objective discussion we will have to devise methods more or less similar to those of natural scientists. Laboratory experiments are not always possible with human beings, though the latter in their primary, *i.e.*, repetitive behaviours are not distinguished from any other animals or even fleas. Of course neither experiments nor quantitative measurements taken separately are the be-all-and-end-all of natural sciences. Concepts like the normal solution or physical constants are equally necessary. This logical method has been productive of immense good in the matter of precision, prediction and fresh knowledge. It should also succeed in other branches of knowledge where the human variable and the social imponderable, which have so long dismayed finite intelligence, are expected to fall into line for better scrutiny, if not for complete and accurate measurement. In fine, the success of scientific method dictates the necessity of the concept.

But, probably, that is not the whole story. The very development of economic thought contained within itself a motive-power for the drive towards the Optimum. In Malthus' path-breaking generalisations about population and food supply we notice the theoretical searchings for some limits. As I have pointed out in an article (*Calcutta Review*, pp. 33—36, October

1935) Malthus envisaged, as was natural to one committed to the deductive method, three absolute limits, *viz.*, equality of conditions, an unlimited territory and an unlimited wages-fund. Besides these, there were three other limiting conditions: (1) the physical, *i.e.*, the law of diminishing return, here, (as Prof. Cannan has taken pains to point out in his 'A Review of Economic Theory') priority of Malthus over West and Ricardo may be granted without admitting that Malthus was fully conscious of the implications of his observation, say, as John Stuart Mill was; (2) the socio-economic, here came the famous positive checks including human misery, vice, lowered standard of living, in short all that which came in the wake of increased price of food-stuff and the bungling of the poor law and its attendant evils; (3) the individual limits which human beings deliberately set to themselves in the way of postponement of marriage and prudential self-restraint. Within such limits Malthusian generalisations were framed. In other words the first three were the basic assumptions, and the three latter the limiting conditions. By themselves these limits were not rigid, but for the study of population, which was an arena for the play of interactions between the physical and the human, they were clearly definitive of the scope of discussion. Elasticity of treatment is as stringent a necessity as definition of the scope of the subject. Both are assured in the tenor of Malthus' argument, in his double approximation implicit in the use of *at least* and *at most* in the two mathematical generalisations, and in the care which he bestows on explaining that his mathematical form was to be understood as setting the upper limit, *i.e.*, the outside limit beyond which the population would not be expected to rise in a lasting way (Essay, 2nd Edition, pp. 11-12). As Halevy,¹ Wright² and Fairchild³ (p. 84) have pointed out, Malthus was concerned with the dynamics of the process, *i.e.*, with the constant operation of the different forces between themselves within a sphere of defined conditions. In other words, the limits would act and be reacted upon by the interplay of the forces inside as the inner side of a bowl by the pellets within.

Logically, very little can be urged against Malthus. His general proposition about the tendencies still remains as the base of constant operation against the onslaught of later eco-

¹ History of Phil. Rad., 238.

² Population, 33, 176.

³ Paper on the Optimum Population in the World Population Conference 1927, p. 84, proceedings.

nomists, whose sole achievement has been the capture of the outposts. On the other hand, the base wants refinement or repair in the light of modern technique and apparatus of economic thinking. Two serious criticisms have been brought recently against his main propositions:

(1) "To imagine that the Essay on the Principle of Population was ever based on the Law of Diminishing Returns is to confuse Malthusianism as expounded by John Stuart Mill with Malthusianism as expounded by Malthus. (Cannan—Theories of Production and Distribution, p. 144.) Prof. L. Robbins has played on the above theme and writes in his Essay on the Optimum Theory of Population (London Essays in Economics, p. 105). "No interaction between the population and the resources at its disposal is postulated. All that Malthus really does is to discuss the respective probabilities of human and agricultural increase and the effects of the latter on the former. The part played by increasing numbers in increasing the produce—even in its narrowest sense—he leaves almost undiscussed." At least this latter half of the problem, *viz.*, the incidence of growth of population upon productivity of individual effort, which has assumed greater importance in economic theory of late, was 'quite subsidiary to the former' in the Essay. In other words, *the return per capita was not his chief concern*. It is along this line that modern economic theory of population has progressed particularly in England and led to the concept of the Optimum.

This particular development was urged by the following theoretical considerations.

In the interest of clear thinking a static economic society had to be presupposed. By the static society was meant that the limiting conditions had to be conceived as limits. The method adopted by theorists of production and distribution could hardly be considered as suitable to the interplay of the growth of numbers and resources *at one and the same time*. Yet the English economists were too great to have missed the fact of the interplay. Their method was therefore to study one factor at a time and consider all others as remaining the same during that period of discussion. The object was noble, for the economists wanted to take other factors in their turn. But life was too short and other factors remained the same. Thus it was that during the last period of the nineteenth century in the English economic thought on population, "the part played by increasing numbers in increasing the produce" became the focus of discussion, inasmuch as this aspect of the question, *viz.*, the interplay as opposed to mere ratio had not been sufficiently gone into.

The result of this mediation has been a very important gain—*viz.*, the idea of return per head⁴ as distinguished from Mill's degree of industrial progress and total aggregate and the earlier Cannan's idea of maximum productiveness. This idea had led to the recognition of the necessity of having concept which will act as the standard of judging two very concrete situations, commonly and empirically known as over-population and under-population. The concept serves the purpose of the bar in the hurdle. The proof of the existence of the bar is offered by the return per head—which is very concrete indeed—and Optimum is to be determined by the highest average income per capita. In moments of release Optimum is the highest average income per capita. Even Prof. Carr Saunders who is not primarily an economist comes to the same definition after an encyclopædic attempt. "As regards quantitative problems we saw that from the first period of history onwards . . . it was of the utmost importance for every group to approximate to the optimum number. This is the number which—taking into consideration the nature of the environment, the degree of the skill employed, the habits and customs of the people concerned, and all other relevant facts—gives the highest average return per head. This number is not fixed once and for all "p. 476" (The Population Problems). While appreciating the spirit of the last sentence we are still bound to notice that here the optimum is the optimum number, which again is the equilibrating number. Prof. Wolfe himself a champion of the concept of the optimum writes (March 1934, American Journal of Sociology), "To call such a balance an 'Optimum' is to rob the term of any economic or cultural significance. Not every maximum is an optimum. If a species multiplies up to the limit of its resources in such a way as to maintain "balance of nature" between its own numbers (kept as high as this balance permits) and its resources, this maximum can be regarded as an optimum only by a personified "Nature" which traditionally is always bent on placing as much life on a given area as possible. From a constructive economic, cultural, or welfare point of view such an optimum is a delusion." Prof. Wolfe is not fair to Prof. Carr-Saunders who gives numerous examples of human control and refers to 'an approxi-

⁴ We must remember that the ground for this shift in emphasis was prepared by John Stuart Mill, the Utilitarian. The connexion between this type of social Ethics and individualism is too well known to meet any discussion. Yet, the actual responsibility of increasing numbers for improvement and the question that 'part at least of the progress of improvement was only capable of being realised by a larger population are not attended to'—Robbins, p. 111.

mation to the desirable number.' The latter's interests are historical and biological, Prof. Wolfe's is mainly economical, *i.e.*, as economical as the cultural impulse of American school of Sociology will allow him to be. Both have come to the highest average income per capita, being compelled by the urgency of the economic factor in social development and the necessity of establishing a clear connection between the effects of increasing population on production and those of progress in industry on increasing numbers. For them it is the only concrete thing, even when it is variable, and not easily susceptible to measurement.

Prof. Wolfe's own criterion of the optimum is the maximum per capita consumer's income. As his language is vigorous and malleable, it is best to quote him. In December 1924 in a paper before the Sixth Meeting of the American Statistical Association (since collected by L. Dublin as *Population Problems*) the real population problem is considered as "that of attaining, and maintaining, the most productive ratio between population and natural resources. Productivity is to be measured by the per capita income of ultimate consumer's goods. This ratio is called the Optimum, and a population of this most efficient size the optimum population. The notion of the optimum is frankly a utilitarian and an individualistic concept." Later on, the difficulties offered by the large number of the variables are recognised to be dismissed by the statement, 'the ideal of the optimum as the criterion of a rational policy still retains its validity.' How then to have an idea of this ideal of the optimum? Not by statistics of national wealth, not even by the price-index but by an index of the inventory of consumer's goods produced each year. Failing this, price-index of money income, less savings and reinvestments will do. Later on, in the same paper Prof. Wolfe writes, 'Practically the population problem is in large measure a problem in social psychology: for the attainment of a rationally adjusted birthrate depends upon the attitude of the whole people.' Still later, 'But psychological factors are not always predictable. Herein lay the defect of Malthus' analysis. Herein also lies a great defect of current population literature.' In March 1934 (*American Journal of Sociology*) Prof. Wolfe has grown less charitable towards welfare-economists but retained his main conviction. "When some years ago I defined the Optimum population as that population which with given natural resources, state of the arts, and standard of working time, would secure the longest possible per capita product of consumers' goods, I thought that I was expressing a fairly definite and

potentially measurable (though not static) criterion. I still think so." The point to be noticed here is this. Prof. Wolfe as is evident from the word 'given' is following the method that has been indicated before, *i.e.*, he is basing his arguments on a static society. Hence his disavowal of the 'static' criterion is not convincing. Nor is his avowal that every maximum is not the optimum, for the optimum is very much like the maximum in a static society. The fact is that Prof. Wolfe's sociology is sounder than his economic thinking. For, as Prof. Robbins in his Inaugural Address on the Present Position of Economic Science took pains to point out (*Economica*, March 1930) . . . "the old plan of analysing "one thing at a time" has definitely broken down—outside very narrow limits . . . Only by abandoning this assumption of other remaining the same and contemplating the process of price-determination as a whole do we emancipate ourselves from these difficulties" . . . "One of the most hopeful developments of the present time is the disposition of theoretical economists to release more than one variable from the pound of *ceteris paribus*. The theory becomes more complex, but its application becomes more practicable."

Chastened by the above quotation we can think less in terms of the largest possible per capita product of consumers' goods, and more in terms, however, less precise, of welfare. This change is not a throw-back from reason and objectivity to sentiment and feeling (*American Journal of Sociology* 1934, 588—90) but a remedy called forth by the 'logical deficiency' implicit in the method of taking one at a time, which has been and still continues to be the bane of thinking in social sciences. In my opinion if, as Prof. Keynes in his 'Introduction to the Series of Cambridge Handbooks' maintains "The Theory of Economics . . . is a method rather than a doctrine, an apparatus of the mind, a technique of thinking . . . then the interests of understanding the problem of population in all its complex interlocking of variables are more imperative than the necessity of making a handy concept precise by indices. In other words, the concept of the optimum is neither the ideal nor the practical test of 'efficiency' nor even of 'rational policy'. It is just an ideational construct as yet, though practical conclusions will still continue to be reached by pre-optimum generalisations about population, as is just happening in the case of scientific theory and applied Science (B. Russell—*Religion and Science*, p. 245).

(2) We have so far discussed the one serious limitation in Malthusian generalisations, *viz.*, the neglect of the influence of increasing numbers on increasing the produce. We also know

how by John Stuart Mill's insistence on the Law of Diminishing Returns and the subsequent development of the concept of the return per capita the other concept of the optimum population with its test of the highest average return per capita was formed by Prof. Cannan to refine the theory of population. In the hands of his followers, the word 'highest' remains the same. But as to what follows there is a variety of opinions. Is it the highest number or is it the highest level of material comfort? These two may be one when "Dalton-Theory of Population, *March Economica*" 1928, "changes in numbers influence economic welfare only through changes in production per head and, second, that maximum economic welfare means maximum economic welfare *per head*, and not in the aggregate." Prof. Wolfe's statement that the concept of the optimum is individualistic seems to clinch the issue. But there is the rub. As he himself points out in his article in the *Encycl. of Social Sciences*, the distribution of the national wealth to a great extent affects the per head income. Dr. Dalton adds, "the subjective costs of production and the distribution of these costs between persons and on the degree of steadiness, through time, of economic life and, in particular, of personal incomes and employment." Later on, "A change in tastes and, as a special case of this, a change in the relative importance to lower subjective costs and increased income" is mentioned as equally relevant. Dr. Dalton says, however, that "change in numbers acts more directly and unequivocally on productiveness" than on the other items. This was written in 1928, before the crisis and the serious outbreak of unemployment. The steadiness of economic life was removed, the distribution of national wealth into personal incomes much disturbed by the comparative rigidity of the wages-level and the system of relief to unemployment. Thus it is that the problem of distribution has become more relevant to a study of the optimum from the point of view of maximum economic welfare than ever before. Consequently it has grown more urgent in the study of the optimum inasmuch as the affected distribution of national wealth into personal incomes and subjective costs has led to the differential fertility among different occupational groups with different real incomes.

This then is the second criticism against Malthus. *Pace* his sympathy for the labourers as against the calico-printers the fact is undisputed that he was serving the interests of the class to which he belonged. Though the proletariat was rising in his time yet it had not yet split up into different occupational and income groups. His ideas about the connexion between birth-rate

and death-rate were crude. High birth-rate and high death-rate went together. Conversely, if death-rate fell, as it did, he believed that births and marriages would also be reduced (Essay, p. 219, Nineteenth Edition, also p. 144); London Essays, Dr. M. Buer: The Mal. Controversy) "through increased prudential restraint due to a higher standard of life." Very little beyond this can be found in Malthus. He was certainly limited by his times when increased production was the main concern of the calico-printers and economists alike, and therefore the efficient cause for improvement in the standard of life of any individual was by dividing a greater amount of national wealth by a relatively smaller number of individuals. It was left to later times, probably to Marx whose suspicion of Malthusian generalisations was notorious to stress the two major deficiencies in them. For Marx, the Economic Historian, there was no fixed law of population, and any generalisation about it would be determined by the local circumstances of the period. In the period of capitalism, on account of the greater increase of fixed or constant capital than of the variable or circulating capital, the former accumulates more rapidly in the shape of production goods and labourers are consequently less needed. In other words, greater use of machinery creates a relatively surplus population of labourers. As Marx writes (Capital 506 pp., Aveling's Translation quoted in Thompson's Population Problems), "The labouring population therefore produces, along with the accumulation of capital produced by it, the means by which itself is made relatively superfluous—is turned into a relatively superfluous population—and it does this to an always increasing extent. This is a law of population peculiar to the capitalist mode of production; and, in fact, every special historic mode of production has its own special laws of population, historically valid within its limits alone. An abstract law of population exists for plants and animals only, and only in so far as man has not interfered with them." A criticism of the above view is not difficult. The simplicity of the effect of new machinery in creating unemployment, and to that of the equally simple relationship between fixed and variable Capital, *i.e.*, between saving and spending in modern phraseology, and the dictum about vegetable and animal numbers only betrays the author for type of thinking that characterises a man of great and simple faith. It is however more relevant to note the emphasis that Marx gave to the historical validity of any theory about population depending on the prevalent mode of production with its attendant scheme of distribution, *e.g.*, exploitation and misery in the mode that he had studied so

carefully. The whole presumption of Karl Marx is towards distribution of National Wealth. He is not studied for population problems, but if he is, the effect of his other teachings at least should be towards the following conclusion, *viz.*, that the distribution of national wealth is as important a point in material welfare or highest possible or average income per capita (which is the economists' criterion of optimum population) as production by increased numbers. It is also pertinent to observe that consumable goods are adversely affected by the greater accumulation of production-goods in the present mode of production. Yet the consumable goods become the test of the optimum in the hand of Prof. Wolfe who in a later article in the *En. of Social Sciences* mentions Marx. "A well rounded population theory . . . will recognise, with Marx, that the population problem, (he means the dynamic theory of population, a branch of dynamic economics, in which the "institutional approach is more likely to yield applicable generalisations than the older and more conventional method") in the form it is likely to take in the next 50 years, is more one of distribution than of production."

The relation between the production goods and consumers' goods is not yet settled. Prof. Wolfe's position is puzzling. Yet the distribution side of the question has to be emphasised even at the expense of a Utilitarian, a concrete, a handy or a *precise test* "either as stabilised index of physical production of consumers' goods for '*optimum or maximum*,' the word 'or' is to be noted, '*or prosperity index*,' which as Wolfe himself has pointed out is liable to be tampered with, (as in Germany for the Dawes Plan) by nationalistic considerations to which the concept of the optimum is claimed to be superior. We have quoted Dr. Dalton, who is a member of the Labour Party and a Socialist. We do not know the politics of Pro. Kueziniski. He is an eminent statistician. His remarks on Prof. Fairchild's paper on Optimum Population (in the Proceedings of the World Population Conference, p. 110, in which Prof. Fairchild wanted to add the cultural factors to the ultimate consumable goods under the headings, the maximum possible standard of living as the meaning of the optimum) are well worth quoting. "All that seems desirable is a more even distribution of the national income; but this apparently has little to do with the absolute number of people, since the contrast of misery and wealth is stronger in the United States than in other countries which certainly are more overpopulated. I venture even to say that, if the U.S. with double her present population were to have an

average standard of living by 10 per cent lower than the present one, but with a better distribution of the national income, I would see no reason why she should restrict her population in order just to maintain the present average. In fact the average standard of living nor the income percentage available for cultural wants will furnish a satisfactory criterion, since both may increase in a society where the wealthy get richer and the masses get poorer." He suggests that the standard of living tests should be "supplemented by other tests." I conclude with a similar plea particularly when such other purely economic tests of variations from the optimum like real income, unemployment, the movements of real rates of exchange fail completely, logically as Robbins has shown in the first case (pp. 125, *London Essays*) and Dr. Dalton in the third (*Economica*, March 1928, p. 38) and statically, as shown by Sir Wm. Beveridge (*Ec. Journal* 1923) "In my opinion Prof. Robbins, following Mises, has shown an admirable sense of the true complexity of problem of discovering any adequate test of maximum return by splitting up, i.e., by narrowing the problem into absolute and relative over-population. In the first, the point of maximum return has been passed in the world as a whole, in the second, 'under less favourable conditions of work other things remaining equal,' a unit of labour is less productive in a particular region than in any other place.' Whereas the question of absolute over-population is largely a matter of international concern, that of the latter is a subject for regional study. This then is the refinement that is necessary to the Malthusian generalisations. A regional study will also determine the optimum in a given area, in a particular mode of production, within a definite system of social composition created by a mode of economic distribution, in a series of optima. Then and then will it be possible to gauge the mutual interaction of differential fertility and social mobility,⁵ (these two factors in my opinion hold the key to the limited problem of the optimum population in a country that has reached a certain level of arts and birth-rates and death-rates), and departures therefrom within a particular region in the present state of society. Any socio-biological test like the highest average expectation of life, as Dr. Mukerji has proposed in his numerous monographs on the subject; or that of physiological well-being or maximum duration of life (suggested by Dr. Drysdale in course of discussion on

⁵ *American Journal Of Sociology*, March 1933.

American Journal Of Sociology, November 1934.

Dr. Mukherjee is however fully alive to the importance of these two factors.

Prof. Fairchild's Paper on the Optimum) will at the same time derive its significance and be corrected by the two above factors, *viz.*, differential fertility among different socio-economic groups and the resultant social composition within the bigger group the relative over and or under-population of which is to be studied.

THE NATIONALISATION OF MONEY

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The Nationalisation of Money.

Under the caption "socialisation of banking" and "nationalisation of banking" several volumes have been written urging this much-needed change from the present individualistic and capitalistic system of banking. The more radical section of the British Labour Party proposes the nationalisation of the Bank of England and the premier joint stock banks of the country.¹ The less-socialistically minded supporters are merely content with the nationalising of the administration of the Bank of England alone. The story goes that Mr. (now Lord) Snowden—the eminent Labour Chancellor of the Exchequer who initiated the enquiry into the position of the Bank of England by appointing the Macmillan Committee paid a visit to the Old Lady of the Threadneedle Street and a mere five minutes' interview with the governing authorities of the Bank of England convinced him of the futility of the Nationalisation plans.² Whether the half-hearted plans on the part of the Board of Directors of the Bank of England in response to popular agitation satisfied the public aspirations or not the sheer impossibility of carrying out their wild programme has dawned on the minds of the Labour members. The cry for nationalisation of the Bank of England was never carried out into literal effect though the Labour Party assumed the administrative rôle. This is not the proper place to outline the arguments for and against the proposal of nationalisation of banking. As the title of the Essay points out it is the

¹ See A. B. White : Nationalisation of Banking—or Oscar Sachse : The Socialisation of Banking—See the Introduction of Sir Strafford Cripps—See Frank Lock : Nationalisation of Credit—See "Labour and the Nation" issued by the Labour party. Also Sir Oswald Mosley's "State credit for Labour."

² See Montague Norman—By Dr. Paul Einzig, p. 29—Lord Snowden advocated the Nationalisation of Railways in Great Britain and the creation of State Liquor monopoly—but these were never carried out by him. See Lloyd George—War Memories—Vol. I.

nationalisation of money apart from banking which is the cry of the hour.³

Not monetary nationalism.

Inasmuch as the most respected and learned authority Dr. Irving Fisher has raised a spirited challenge it behoves us to understand the *pros and cons* of this step. Cries of economic nationalism and monetary nationalism have been raised vociferously during the days of this present world-wide depression (1929—1935). Weary of such impossible dreams as economic internationalism, international currency and finance the much distracted nations have given up thinking in terms of the wide world. Assuming rightly that charity begins at home these stupefied nations have been concentrating their energies on the solution of internal or domestic problems. Monetary nationalism was preached and practised openly after the dismal failure of the World Economic and Monetary Conference held in London in 1933. President Roosevelt tolled the death-knell of the international gold monetary standard.⁴ Bent upon raising the domestic price-level in the U.S.A. to a paying height so as to absorb the employable unemployed and enable the debtors to bear the burden of debt more cheerfully the policy of monetary reflation was deliberately pursued in the teeth of opposition of expert economists and the internationally-minded bankers. Since that time other countries have virtually followed a programme of currency management in the light of the economic interests of their own country. Currency cooperation with other countries has almost been totally neglected during these three years—1933—1935. Monetary nationalism has been the prevailing feature or watch-word of the most important nations. Import, prohibitions, quotas, stimulus to exports, exchange control, exchange clearing agreements and compensation agreements have been multiplied and are still multiplying as a result of the strained monetary holdings of the debtor or financially weak countries.⁵ While we have heard of the policy of monetary nationalism and its reluctance to consider the international viewpoint nobody has

³ Frank Vanderlip and Father Coughlin also argue for nationalisation of money and the creation of a Federal monetary authority for the U.S.A. It was Sylvis Gessel who suggested this remedy long ago. Nationalised money is part of his scheme of "Free Money."

⁴ See Sir Charles Morgan—Webb—The Rise and fall of the Gold Standard—also Ten Currency Revolutions.

⁵ See Dr. Paul Einzig—Exchange Control and Exchange Clearing.

heard of this new and significant phrase "nationalisation of money." It is the spirit of monetary nationalism and the possibility of achieving that national economic salvation through it which has been pervading the currency policies of the important countries. But nationalisation of money is not to be mistaken with that of nationalisation of banking or monetary nationalism. It is essentially a widely differing concept from that of banking. Nationalisation of money is not only wholly different from the popular parrot cry of nationalisation of banking resources but it is a cure for the scarcity of money which is the prevailing characteristic of modern banking systems. Money is not to be mistaken for banking though indeed such popular phrases as 'bank money,' 'credit currency' and 'bank currency' are being increasingly used in different contexts.

Its meaning.

To grasp the full connotation of the newly coined phrase "nationalisation of money" the inherent and innate differences between money, currency and credit have to be fully grasped. Money is often popularly understood as "metallic money" or "hard money"—the substratum on which the edifice of currency or legal tender bank notes or currency is raised. Securing a portion of this and placing the lawful money or legal tender currency as the basis a wider superstructure of credit is raised. If the intricate relationship between the three can be accurately diagnosed it will be likened to that of an inverted pyramid the solid basis of which is metallic money and the immediate or wider layer is currency and the broadest layer is that of credit.⁶ A destruction of a small portion of money would destroy a greater portion of currency—the destruction of which will lead to the total disappearance of a large portion of bank created credit. The word money is sometimes loosely applied to the whole circulating media, be it metallic money, legal tender currency notes or bank credit. The power to manufacture or mint metallic money is the direct prerogative of the Sovereign.⁷ The legal tender bank notes are created by the Central Bank and bank credit is the direct resultant of the action of commercial banks of the

⁶ Taking the English Banking system as a whole it has £ 150 mil. of gold and £ 400 mil. legal tender currency and about £ 3000 mil. of bank money.

⁷ Originally it was the individual merchants and temples which issued money. To curb the evils arising out of diversified coins it was taken over by the State.

See C. A. Conant—Vol. I. Money and Banking—p. 128. See also A. R. Burno—"Money and Monetary Policy in Early Times"—p. 80.

country. Banks are now acting as "private mints" creating money to meet the needs of the people. For a smooth functioning of the system 10 per cent money is kept as the cash reserve for credit or deposit money created or loaned out by the banks. The proposal of nationalising money is to drive away the power of creating circulating media of exchange possessing undisputed purchasing power from the hands of banks. In short it aims at divorcing money from banking. Though it is not proposed to abolish cheques the cheque-paying banks are to be prohibited from creating cheque-currency while maintaining a frail basis of 10 per cent money against the same. Cheques, cheque-paying banks, loans and the right to attract deposits would still exist. But the existing ten per cent cash reserve basis for banking business has to be radically changed or altered. In lieu of the same a 100 per cent cash reserve basis for deposits is to be insisted upon. Briefly speaking the proposed reform consists in substituting a 100 per cent reserve for the existing reserve of ten per cent which is usually kept by the conservative bankers.

Modern banking.

Prof. Fisher remarks that four chief functions are usually performed by modern banks. They are (1) money-changing, (2) note-issuing which is almost invariably relegated to the hands of a central bank, (3) cheque-paying business against the deposits lying to the credit of the bank customers-depositors, (4) borrowing or loaning to the needy customers and investing generally.

Competition is so great that almost all types of banks generally perform all these basic functions.⁸ At any rate in the U.S.A. the investment banks, trust companies and savings banks specialise in one feature or other and commercial banks specialise in the making of short-term loans and attracting deposits against which cheques can be drawn or issued.

The proposal of nationalising money does not affect money-changing business in any way. By note-issuing and cheque-paying business banks create 'bank money' or 'deposit currency' or 'representative money' as the technical expression goes. It is this money the bulk of which arises out of loaning or investing done by the banks that will be the subject of nationalisation scheme. Loaning and investment business of banks would not be affected in any way by this plan. Modern banks will be allowed to exist but a proper division of the func-

⁸ See my *Elementary Banking*—1st Chapter.

tions would have to be carried out by the banks. Cheque or deposit banking will have to be done by the cheque department of the bank while the loaning and investment department exists separately in another department. Legislation and supervision would extend to the cheque department. As in the case of the Bank of England⁹ and our Reserve Bank of India the Issue and the Banking Departments are totally separate so also the cheque and the investment departments of these licensed banks will be virtually separated, so that the practice of a loan leading to a deposit may be destroyed. Modern bank deposits are mostly banks' own creation arising out of their loans and investments. "Capricious legerdemain" or "sleight of hand" on the part of the banker is responsible for this huge creation of deposit currency.

A double-edged weapon.

The villain of the piece is the cheque currency. At times there might be a plethora of the same or more modicum of the cheque money or "phantom money" as the more imaginative critic styles it. Acting as "irresponsible private mints" and with little cooperation amongst themselves banks are manufacturing cheque currency and through the same function confer either blessings or a curse on society. It has been most aptly described that the modern banking or ten per cent system "booms the booms and busts the busts."¹⁰ There is a seesaw movement once this way and at another time the other way on account of the modern bank or cheque creating business arising out of the unregulated ten per cent system of cash reserves. The nation's circulating medium is arising chiefly out of the loaning function of the banks. The volume of the circulating medium can either be inflated or deflated by the banks—which action depends on their cash reserves. This function which has been hailed as a fortunate discovery curing the inelasticity of bank-note currency arising out of rigid cash reserve regulations binding the note-issue is at present the target of attack.

Regulation of bank deposits.

Deposits have to be regulated like the notes for in reality they are both liabilities of the banks.¹⁰ As the deposit constitutes

⁹ All Central Banks modelled on the Bank of England have this bi-departmental system.

¹⁰ For other different points of similarity see my Elementary Banking Section on Note-Issue.

a more dangerous liability than the other forms most of the modern Central Banks have strict regulations binding their deposit business. The following table shows the legal regulations concerning notes and deposits of the chief central banks of the world.

Name of the Bank. ¹¹	Percentage proportion of cash reserve against notes.	Percentage proportion of cash reserve against deposits.
The Bank of Australia . . .	25%	<i>nil</i>
The Bank of Belgium . . .	30%	30%
The Bank of France . . .	35%	35%
The Bank of Holland and Java	40%	40%
The Bank of Poland . . .	30%	30%
The Bank of South Africa . .	40%	40%
The Bank of Spain	37 to 47%	<i>nil</i>
The Bank of Switzerland . .	40%	<i>nil</i>
The F. R. Banks of U.S.A. . .	40%	35%
The Bank of Uruguay	40%	..
The Bank of Peru	100%	..

While the law is not uniform in all respects in all countries with reference to both deposits and notes no country imposes any shackles on the deposits of ordinary commercial banks or "cheque-paying banks" as Hartley Withers styles them.¹² The proposed reform is to insist on keeping a hundred per cent reserve in case of all banks against notes as well as deposits. As a matter of fact there will be no more bank notes issued even by the Central Bank. Their place will be taken up by the Commission Currency issued by the currency authority.

In addition to the above cardinal suggestion which can be easily justified when we remember the fact that the early-Goldsmith bankers—the legitimate forerunners of modern banks—and the Bank of Amsterdam in its early years of existence¹³ kept 100 per cent reserve against the deposits the power of creating any other form of money device or token by the banks

¹¹ See J. M. Keynes—The Treatise of Money—Vol. II.

¹² See Hartley Withers—The Meaning of Money.

¹³ See C. F. Dunbar—The History and Theory of Banking.

has to be scotched. Apart from declaring that money is to be nationalised and is to be issued by a national authority such as the Currency Commission it should be declared penal that no money token possessing purchasing power can be created by any bank or any other institution.

Just as legal tender bank notes can be issued by the legally constituted authority alone,¹⁴ namely, the Central Bank so also the circulating media of the future can and should be created by the Currency Commission alone. Banks can issue cheques as before but only after keeping 100 per cent reserve. They are to be mere warehouse certificates akin to the gold¹⁵ and silver certificates¹⁶ issued by the U.S.A. Treasury to its people who make the necessary deposits of gold and silver in its vaults. This precaution cannot and should not be overlooked in the proposed monetary reform. Granted that such a device were to be perfected by the banks they would again be functioning as "irresponsible private mints" by issuing the new device or substitute for cheque money. Some time ago enterprising British Banks permitted their customers to issue chequelets in order to escape the heavy stamp duty of 2d. payable on each cheque.¹⁷

The genesis of cheques.

It may be easily remembered that as a result of rigid shackles imposed on the note-issues that modern deposits and cheques arose to circumvent the legal position created by intolerable note-reserve regulations. This discovery was hailed at that

¹⁴ See sections 31 and 32 of the Reserve Bank Act of 1934—Every Charter of a Central Bank has such a penal provision.

¹⁵ The "Yellow backs" which were being issued from 1893 had to be discontinued since 1933 when America abandoned the gold standard and passed regulations against the hoarding of gold. The new gold certificate issued under 1934 Act can be held only by the Government or the F. R. Banks. These gold certificates are not meant for circulation and they are issued in denominations of Dollars 100,000. They can be converted into gold at the discretion of the President for settling international balances or for maintaining equal purchasing power of every kind of currency in the U.S.A. See E. W. Kemmerer—Money.

¹⁶ The Silver certificates still circulate and they can be issued under Pittman's Silver Act of 1934. These are redeemable in silver dollars. Increased issues of Silver certificates are being made in the U.S.A. as a result of AAA of May 12, 1933. Additional Silver dollars are also issued after December 1933.

¹⁷ It was decided by Justice Rowlatt in course of his judgment that "the exact wording of the document and the actual use of it should be noticed by the Court." As the Midland Bank was issuing them not as receipts but as cheques it was declared illegal to do so. See *Midland Bank Ltd. vs. Inland Revenue Commissioners*—1927—2KB—465.

time as a God-sent measure conferring the much-needed elasticity on the circulating medium.¹⁸ It was only the latter-day abuse of this function that led to the agitation for banking reform but unfortunately it was the deposits of the Central Reserve Bank alone which could be regulated by these reformers. For example, if cheques are permitted against savings deposits this abuse would become widespread. Unless this is effectively curbed the power to create circulating medium is not entirely removed from the hands of the banks. The power to create any monetary unit by any such device or other should be curtailed. This necessarily follows the broad recommendation which says that money should be understood in the sense of circulating purchasing power and be segregated from banking business understood in the sense of loaning or investing.

An efficacious remedy.

Considered as the most efficacious remedy for checking the course of booms and depressions this new suggestion of 100 per cent money is being recommended as it can be easily promulgated¹⁹ and also on the ground that it would tend to purge the deposit function of the banks of all its evils. There will be no radical alteration of the monetary and banking habits of the people, businessmen or the banks needed to carry out this suggestion. The Currency Commission would have to take up all the existing 90 per cent assets of the modern banks and issue its Commission Currency so that all deposit banks will cede or sell away the Government bonds and other securities on which these banks have been conducting their deposit creating business. A 100 per cent reserve will be duly created by this process and further deposit attracting would have to be done solely on the basis of keeping 100 per cent cash reserve. Deposits thus constitute in the future "trust funds." Banks become trustees of the same. All monetary operations of society would have to be performed with the help of actual bearer or pocket-book money and cheques against which 100 per cent cash reserve is properly kept by the commissioned or licensed banks and duly supervised by the Currency Commission. Even the Central Banks would have to be subjected to this process (*i.e.*) the existing

¹⁸ Even those who criticise adversely the provisions of the 1844 Bank Charter Act of England point this out as a substantial advantage arising unconsciously out of the operation of this Act. See Dr. A. Andreades' History of the Bank of England.

¹⁹ Even bills have been introduced in the U.S.A. Legislative Chamber.

reserve against deposits which is 30 or 35 per cent would have to be increased as in the case of notes also to 100 per cent cash reserve. The modern ten per cent system has to give way to 100 per cent system.

The *modus operandi* of the Currency Commission.

The power of securing elasticity which a sound money should possess is to be conferred on the Currency Commission.²⁰ The needed expansion of money can be forthcoming by the Currency Commission rediscounting the promissory notes of the Central Bank at rates fixed by itself. It can buy and sell Government bonds and other eligible securities which are usually bought and sold by the Central Bank. It can buy and sell gold as well as silver and buy and sell foreign exchange. All these functions are to be done by issuing commission currency or by book credit in the books of the Currency Commission. The proposed reform virtually amounts to the super-imposition of the Currency Commission on the Central Bank and placing the money-creation business in its hands. The Central Bank is to be reduced to a purely secondary rôle. It will no longer be a bank of issue. At present both the dual functions, currency and credit creation are vested in the hands of the Central Bank. The new reform would ask us to go back to the older regime, namely, dual and separate authorities for money and banking and would nationalise the money creating prerogative by restoring it back to the nation. "The usurpers,"²¹ namely, the banks are to be shorn of this prerogative. By careful supervision of the licensed cheque-paying banks it can see as well as secure that no other money except its own commission currency will circulate. The existing bank deposit currency will be mere fully secured warehouse or bullion certificates for 100 per cent cash reserve kept against them would make them literally so. The hoarding and velocity of currency can be tackled by adopting a plan like the "stamp scrip plan."²²

²⁰ The details of the proposal are carefully chalked out by Prof. Fisher in his recent book entitled 100 per cent Money.

²¹ Mr. M. K. Graham says that Deposit currency is money, that part of it made by State banks is in violation of the Federal Constitution and will in *time be so declared* (Italics mine)—Continuous Prosperity—By M. K. Graham—Quoted by Prof. Fisher in his "Booms and Depressions."

²² Sylvio Gessell realised long ago that the bridling of the monetary machine can be done safely when the velocity of circulation is controlled. So he developed his plan of Free Money or Stamped Notes—See his "Natural Economic Order"—

If contraction of currency were to be needed the Currency Commission can secure this by selling gold, foreign exchange or eligible securities or Government bonds so that the needed contraction of currency would be forthcoming. The hoarding and velocity of currency would have to be controlled by the Currency Commission.

A mandate has to be issued to the Currency Commission to stabilise the Currency Unit. The stabilisation of the Currency Unit can be secured by the Currency Commission altering its rediscount rate, conducting open-market operations and changing the price of gold according to the dictates of an Index Number representing the cost of living. As Sweden has succeeded in stabilising the cost of living Index during the years 1932 to 1935,²³ one need not doubt the theoretical as well as the practical possibility or the feasibility of this plan for securing stabilised money.

Lest the existing Central Bank forgets its cardinal duty of scrutinising and guaranteeing credit its profit-making incentive might be curbed by fixing 6 per cent rate of dividend as the maximum that can be declared at any time. The Reserve Bank of India has such a provision limiting its profit to a cumulative five per cent as the maximum figure.

The Currency Commission can pay its own expenses out of the return of interest rates on securities held by it. After meeting its necessary expenditure the surplus can be returned to the Government Treasury. With the virtual expansion of the nationalised money issued by the Currency Commission the return will be augmented greatly so much so that taxes paid by the people might be reduced or amelioration or "social salvage" services of the State might be easily financed in order to make the lives of the people happy, healthy, wealthy and wise.²⁴

The plan of issuing currency and its management have been expounded thus far. Some of the positive merits of nationalised

or J. H. Buchi—Free Money—pp. 72—168—See also Oscar Sachse "The Socialisation of Banking—Ch. IX—entitled Sylvio Gessell—The Free Economy of his is carefully explained.

²³ See Irving Fisher—Stabilised Money—Appendix II, pp. 399—409. There was a total spread of 3.3 per cent in course of two and half years half-above and half-below in the consumption Index of Sweden—Quoted from Kjellstorm—Managed Money.

²⁴ Much capital is made by the advocates of the proposal of Nationalisation of Banks as it would tend to improve the financial aspects and resources of the State.

money would have to be appreciated before the scheme can be launched forth.

Some positive advantages.

Interest rates on money will slowly, surely and gradually be lowered as a result of unceasing and uninterrupted flow of savings arising out of the elimination of booms and depressions. Savings and loans or investment would tend to be equalised and made to run parallel to each other. As a stabilised price-level would result if the Central Bank were to carry out the mandate for stabilisation of prices the nominal as well as the real rate of interest would coincide—thus eliminating one of the causes for business fluctuations. The nationalised money plan would eliminate the risks and hazards attendant on the modern cheque-paying business based on the frail and inadequate reserves of 10 per cent cash against the total liabilities. The maintenance of highly liquid securities in addition to ten per cent cash reserve is leading to very low yields. This can be rendered unnecessary by 100 per cent Reserve against deposits and the holding of such assets which tend to secure bigger returns. A nationalised money plan would render such a doubtful remedy as deposit guarantee or insurance unnecessary.²⁵ Writing in 1930 I have pointed out elsewhere the defects of this remedy, *i.e.*, deposit guarantee.²⁶ Branch banking which is practised as an intelligent safeguard against bank failures, runs and risks cannot be undertaken rather easily without some monetary sacrifice by the smaller banks.²⁷ Hence the plan of nationalisation of money which is literally so pregnant with such possibilities should be seriously considered before it is incontinently rejected as an unsound piece of advice and an Utopian or impracticable scheme of reform. Practical bankers should approve this suggestion and not oppose it as they have done several other useful changes in the past.²⁸

²⁵ The 1935 Bank Act of America has retained this doubtful act of wisdom on the part of the U.S.A. Government though it has been adversely criticised in 1933 for it does not vest any supervisory powers on the Government although it extends guarantee. As a move for securing a homogeneous banking system it might be retained for some time only.

²⁶ See my *Present-Day Banking in India*—Third Edition.

²⁷ Some of the loan companies of Bengal are undertaking branch extension. Provided that internal management is sound there is no reason why the loan banks should fail.

²⁸ For instance, the very formation of a Central Bank of Issue has always been opposed by the older banks. Such opposition was vigorously raised in the Canadian Banking system during 1932 and 1933.

Comparison with nationalisation of Banking.

All ardent advocates of nationalisation of banking proposal deem it necessary to be fitted in a stage of socialistic economy.²⁹ But this difficult and complicated process of changing the different aspects of society is not necessary for the carrying out of the plan of nationalisation of money.

Nationalisation of banking involves a complete *economic revolution* while nationalisation of money does not need even a *complete banking revolution* but a mere simple return back to original banking days.

Nationalisation of banking has been vetoed chiefly on the ground that it would lead to a flight of capital from the country—though, of course, it has to be tacitly recognised that the fixed capital resources of a country, like its factories, railways, fields, labour, etc., cannot leave the country at any time.³⁰ A great deal of energy, time and talent would be needed to carry out the nationalisation of banking³¹ as proposed by the British Labour Party in its Conference held at Leicester in 1932. Apart from creating an active Currency Commission the plan of Nationalisation of money can be easily carried out without any waste of talent, energy and time. Even the plans needed to install the new regime would not cost much.

In order to maximise the benefits of a socialistic economy the plan of nationalisation of banking concerns is used as a means or “one of the earliest steps” considered essential to bring about the desired end.³² It is evident to every thoughtful reader that nationalisation of money is a means as well as an end by itself. There is no talk of any socialisation of economic society by the advocates of this plan.³³ The nationalisation of money would

²⁹ An active body of socialists guide the destinies of the British Labour Party in England. A socialist State and an immense bureaucracy would supplant the present State and the capitalistic machinery if the Labour Party were to be placed in power.

³⁰ Both G. D. H. Cole and the late Mr. E. F. Wise clearly explain this view in their published writings “There would certainly be a panic among property owners.”

³¹ A planning Committee of the Cabinet will have to carry out the work of nationalisation. A big banking corporation under public ownership and control would carry out the banking business.

³² Mr. G. D. H. Cole who is the economic pundit of the British Socialist Party says that “socialisation of banking is a necessary prelude to any successful measures for bringing about the socialisation of industry.”

³³ Sylvio Gessell proposed a similar reform of creating a Currency Office to issue Free Money but he proposed the nationalising of land also in order to secure a natural order of things in society.

not require the nationalisation of banks in order to control the credit created by them. Money creation would now under the national monetary commission's regime belong to the state and not the banks. The smashing of the existing banking system need not take place as an essential preliminary to the carrying out of the money nationalisation regime.

At times the cry is raised that banks are deliberately charging a high rate for the service of creating credit.³⁴ At any rate this is one of the fundamental reasons why the nationalisation of banks is suggested as a desirable remedy. Under the management of the Currency Commission lower interest rates will ultimately prevail and the rediscount rate fixed by it might be keyed to a lower limit or pitch altogether than at present. Its capacity to create money is not limited by hard and fast rules requiring the maintenance of a high metallic cash reserve.

Broadly speaking nationalisation of banking after all means the nationalisation of money for the sole objective is "to secure the sole right of making the money for which the State will be held responsible." By this process they wish "to find out where money ends." The ideal of managed currency can never succeed if the banks are not nationalised and amalgamated to form "the Bank of Great Britain" with branches all over the country. At present there is a multiplicity of independent banking organisations resulting in "unnecessary duplication of work and much unnecessary clearing." Thousands of mercantile and other customers maintain accounts at several banks in order "to secure advances and stand well in the estimation of managers and offend nobody." Some of the dishonest customers can hide any amount of "secret reserves and inconvenient debts." Hence if one sole bank were to exist these things would not arise. Nationalisation of Banking is evidently to be projected as it would lead to the nationalisation of money. Without achieving this there can be no realising of the advantages of socialised banking.

Objections to the plan of nationalisation of money.

The plan for the nationalisation of money will undoubtedly not be received very warmly for the field of monetary thought is thickly overgrown with fallacies and formidably fenced with

³⁴ The British Industrialists raised this slogan and succeeded in appointing the Macmillan Committee in 1929—to inquire into the state of finance and industry in Great Britain. See A. Kitson—the Fraudulent Standard—see also S. E. Thomas—British Banks and the Financing of Industry—See J. T. Peddei—The Dual System of Stabilisation."

hopeless prejudices and arrogant misconceptions. As this idea might be discussed in the not very near future the field ought to be prepared for a rational understanding of the proposal. An early refutation of the fundamental fallacies has to be secured. Unadulterated monetary ignorance would clog the path of progress for ever.

Would there be a drying up of credit ?

Firstly, there is the mistaken notion that the substitution of 100 per cent cash reserve would "dry up the sources of credit." This is a fallacy for banks can still lend out of their capital resources, accumulated savings deposits and the accruing reserve fund. Only the short-term loans might be diminished in volume while the long-term loans partaking of the character of investment would be on the increase. The rapidity of turnover of the loans will determine the volume of loan amount made by the banks. "Current credit creation" always depends on the rapidity of turnover. The smooth running of business without booms and depressions would increase the loan amount of the banks. It is the Currency Commission that creates money. These funds can be loaned out by individual banks which maintain 100 per cent reserve for the total amount of deposits. They can always stand ready to lend the amount created by the Currency Commission which carries on the rediscounting business.

Lack of parallel expansion of business and bank deposits.

Secondly, a modern tie or close nexus has been established between the businessmen's loans and their deposits. How a loan makes a deposit has been explained by me in another context.³⁵ While in the former times the bonds of the Government created the bond³⁶-secured bank note currency so also in modern times legitimate business loans create bank deposits and deposit currency which circulates in society. It is this happy and ingenious discovery which confers elasticity on currency. Unfortunately there is no proper or "genuine matching" of loans with deposits. The policy of bank loans creates deposit currency not in exact proportion with itself. But banks create deposit currency faster than business expansion leading to a rise in prices and expansion of business profits. It is money expansion which precedes business expansion. What is needed is parallel expansion of both at one and the same time. Elasticity secured

³⁵ See my Elementary Banking—Section on Bank deposits.

³⁶ Notes secured on general assets should be differentiated from notes secured on bonds of the Government.

by uncoordinated action of banks is futile and mischievous.³⁷ Over-lending and under-lending arise under the ten per cent system while the 100 per cent money would make the needed amount of money come up to actual business requirements and business would be saved frequent breakdowns.

The misunderstanding of synchronism.

The synchronism which exists between business expansion and a rising price-level is not properly understood. It is wrong to assert that business expansion leads to a rising price-level. Money ought to expand as fast as business but not much faster and this can be secured under a 100 per cent money system easily.

The depression of business leads to diminution of cheque currency and the idle money lying in banking vaults might increase. But the fact that cheque currency has diminished is not recognised by the people. A depression is usually followed by restriction on business and failures. Afraid that banks with meagre cash reserves of ten per cent might fail people withdraw their deposit money which leads to contraction of larger volume of cheque money. Roughly if one unit of cash reserve money is withdrawn it destroys 10 units of cheque money which has been created by the banks. Banks are saddled with excess reserves in times of depression for lacking confidence in the prices prevailing businessmen do not use bank credit as freely as before. The bank reserve is made to lie idle without rearing the usual credit superstructure. An increase of bank reserve must not be mistaken for increased circulating media. A plethora of reserves would result if businessmen go on strike in the matter of using bank credit as before.

Total amount of money and money to lend.

While possessing money the lending of the same money may not be accomplished for businessmen saddled with debts might not care to increase further debt specially as business situation becomes gloomy and prices fall with a thud. Again it is only a part of the total amount of money that can be lent. A part has to be utilised to secure the necessities of life. A portion might be invested and it can be easily grasped that the total amount of

³⁷ Even in a highly integrated banking system such as that of the English Banking system the Bank of England has to secure control over the lending policy of the commercial banks in order to make its credit control policy effective—" See the Future of Monetary Policy—Chap. on Limitations of the Financial Machine.

money and money to lend are two separate items. One should not be confused with the other.

When is inflation desirable ?

Totally false notions are entertained concerning the desirability of inflation of money or "controlled reflation" is justified on the ground that in combating a business depression this increase of cheque currency is desirable. Without this increase prices will not rise and business will not reach a state of prosperity. Specially if reflation is only a corrective action or remedial measure for previous deflation it ought not to be decried by the public.

The issuing of currency by Government.

Existing banks think it their birthright to manufacture cheque currency as a part and parcel of their proper and lawful duties. But they little realise that uncontrolled cheque currency has been the cause of so much disaster to us. Banks generally resent any encroachment on the part of Government with reference to this function. They welcome mutual deposit expansion and shun Government currency expansion.³⁸ But the control of money is not a banking function and should not be left to the hands of irresponsible and self-seeking private individual banks. Both banks as well as people consider that Government issuing of currency leads to abuse. That Government should have nothing to do with the issuing of money is the parrot cry. The plan for nationalising money certainly yields half-way on this score and entrusts the issuing of money to a currency commission. The Currency Commission should be free from the influence of "party politics" or the influence of "big businessmen."

" Purposeful " not " random tinkering."

The notion still lurks in the minds of the people that "the gold standard is the best currency standard." While this statement is not theoretically true³⁹ it must be admitted that even this

³⁸ The oft-quoted charge is that Government is too wooden, too inelastic to respond to the business requirements of the people and create due amount of currency.

³⁹ Monetary theorists plainly admit that the gold standard is not an ideal standard. There are several weaknesses inherent to the gold standard form of monetary organisation. See my monograph—Some Currency Lessons of the War—Calcutta Review—p. 201 etc., May 1925.

best standard needs a lot of intelligent management. "Purposeful tinkering" of money with a view to stabilise its value has to be done by the Currency Commission. "Random tinkering" is what is being done by the Central Bank when it has been managing the "goldless gold standard."

Limitation and not mere convertibility.

Redemption or convertibility into gold was considered *a sine qua non* of the circulating medium under the gold standard form of organisation. Instead of recognising that limitation fixed the value for the convertible paper currency it was held erroneously that convertibility into gold fixed the value for paper currency. The redeeming of paper currency in terms of gold could be done successfully when that paper money was limited in quantity. Indiscriminate creation of paper money meant virtual abrogation of the redeemability feature. "The inverted pyramid of bank money based on a tiny apex of gold at the bottom" meant a deliberate courting of failure or breakdown of gold standard form of monetary organisation.

The possibility of controlled paper standard.

That gold is no more stable or better standard than controlled paper is realised by all.⁴⁰ The currency experience of England, Australia, Argentina, Sweden and the U.S.A. during 1922—1929 period confirms the conclusion that controlled paper is as stable as gold and free from any abuse of inflationary excesses. Paper has better stable purchasing power in terms of commodities and services than gold. "During 1932—1934 it was the American *Dollar*, the German *Mark*, the French *Franc* and other Gold currencies that were unstable while the Scandinavian currency, the Canadian dollar and the pound sterling have been stable" says the Columbia University Commission Report on Economic Reconstruction (p. 41).

The Currency evolution after the War has been in the direction of substituting "*a market basketful of typical goods*" in place of *a fixed weight of gold* as the standard of value. The currency problem of each country is to stabilise the internal value and all countries should cooperate in fixing or stabilising the long-period value of gold and occasionally revising it when necessary.⁴¹

⁴⁰ See L. L. B. Angas—The Problem of Foreign Exchanges, p. 152, et. seq.

⁴¹ This has to be done in the light of the natural supplies existing in the market.

Each of the existing money units like the currency rupee, the dollar, the pound sterling, the franc and the mark should be kept stable in domestic purchasing power and in foreign exchange. Each country should have 100 per cent money using the money created by the Currency Commission. The banks of the countries would issue paper currency *convertible into bearer money and not gold*.

The ultimate standard of value is not to be gold alone as at present but a registered Index Number comprising chief commodities and services. The currency law of the countries would permit the use of gold for international payments. Perchance discretionary redemption into gold might not be refused altogether. It might be allowed and occasional revisions of long-period value of gold would have to be secured. Thus envisaged the nationalisation of money with 100 per cent reserve against deposits would give us stable and sound money. The existing banks would exist as lenders of money. The Central Banks would exist as the initiating banks in the matter of re-discounting which will be done by the Currency Commission. The avowed deficiency of the monetary system and banking organisation can thus be ended by the adoption of the plan of monetary nationalisation. Monetary nationalisation solves the problem of stabilising money by linking it to a price-level and freeing it from the trammels of bank loan policy. Banking policy can be adequately solved by eliminating the practice of inadequate reserves and insisting on keeping 100 per cent reserves. A wisely constituted Currency Commission should manage the amount of circulating currency on a price-level basis. It should manage the long-period value of gold and regulate the foreign exchange rate. The Currency Commission must educate the public so as to realise that money is not mistaken for wealth.⁴² Money is a mere convenient device to eliminate the proverbial inconveniences of barter and facilitate the exchanging of commodities or services. Tied to commodity—gold or silver—money appears as the most liquid, tangible and mobile form of wealth. But it is only an abstract idea serving as a useful medium of exchange.⁴³ It should never be considered as a

⁴² "A real intellectual confusion between money and wealth exists. It flourishes abundantly in a more literate and educated world today and linked as it is to nationalism is perhaps still the most disruptive force in European civilisation." *Vide the Story of Money*—by Norman Angell—p. 154.

⁴³ Wicksell says that "the commodity character of money and its concrete characteristics retire more and more into the background during its employment as money; these may reappear again, but only when it has ceased to be money

concrete commodity.⁴⁴ This propaganda will enable the carrying out of the intelligent management of money based on a price-level. While it is the function of banks to stimulate and supply liquid capital and properly and adequately distribute it the function of money is to supply a system of exchange including a device for measuring value and media which vary in volume and form according to business requirements.⁴⁵

and has changed itself into a commodity again. Money sublimates into an abstract quantity, into a mere quantity of value. Quoted by Karl Helffrich—*Money*—p. 494—Prof. Liefmann also says that "money in the narrower and more rare sense is the real representative means of payment, the money-signs. Money in the broader sense indispensable to the explanation of economic process is the abstract unit of computation. The concept of money in the real sense is of lesser importance." Quoted by H. S. Ellis—*German Monetary Theory*—p. 43.

Prof. Schumpeter says the same thing when he remarks that "money is by nature not a commodity, even when it accidentally consists of valuable material."

⁴⁴ J. M. Keynes says "Money is a subtle device to link the present to the future. We cannot get rid of money even by abolishing gold and silver and legal tender instruments." *The General Theory of Employment, Interest and Money*—p. 294.

⁴⁵ See F. A. Bradford—"Money"—"Banking" p. 3 and p. 2 respectively.

FACTORY SUGAR AND ITS PROBLEMS

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In the present article we propose to analyse the limitations in the manufacture of white sugar in the factories. There are a number of problems before the sugar factories, awaiting prompt solution before the industry can be regarded as firmly established. Of these problems, the provision for a regular and adequate supply of fresh canes to factories is most important. A sugar factory has to depend on its immediate neighbourhood for the supply of canes not only because cane cannot be transported for long distances without rapid deterioration, but also because its value is so small in comparison with its bulk that the cost of quick carriage over a long distance becomes prohibitive. Therefore the more compact the area on which a factory depends for its cane, the greater is the economy in working. Further, timely supply of cane is of great importance for the efficiency of a factory and any shortage, abundance, or irregularity of supply is reflected in the inefficiency of the mill or the length of its working season. In Java a sugar factory works on an average for 126 days. In India the period varies in length from 60 to 115 days, but it is seldom more than 100 days. The shorter the working season, the heavier the overhead charges and the greater the difficulty of securing economic working.

The usual system adopted by sugar factories at present for obtaining their supplies of cane is to purchase it from a large number of small growers, generally through the agency of contractors, who undertake to supply an agreed quantity from a given area. The weakness of this system lies in that it assumes that the cultivation of cane will continue on the present scale and ample supplies will be forthcoming in the future. The factories do nothing to foster cane cultivation, to introduce better varieties, to improve cultural methods or to provide irrigation facilities. They, in fact take no interest in the agricultural side of the industry at all, although the cost of cane constitutes approximately two-thirds of the total cost of production of sugar.

The importance of a regular supply of fresh cane to the efficient working of a factory in view of the facts portrayed in the

preceding paragraph hardly needs any emphasis. The fact to note is that the necessity of having a fresh supply of cane limits the area within which a factory can draw its supplies. Furthermore, since Indian sugar factories are centred in a particular geographical area where the only means of transport available is of bullock carts, the available area from which cane supplies can profitably be drawn is still more restricted. Railways, indeed, facilitate the transport of cane, but the utility of railroads is limited because of the time which elapses between the cutting of the canes in the field and their transport from the field to the railway station. Some factories have their weigh-bridges near the railway stations to help prompt despatch and this has been successful. But the fact remains that Indian sugar factories have great disadvantages in this respect as compared with other countries. Motor lorries can profitably be employed by the factories, but the lack of good roads makes any attempt on large scale futile. Suggestions have also been offered for the construction of light railways¹ in this area, and if they materialise much needed stimulus would be given to the stabilisation of the industry.

Under the present organisation of the central factories in this country, and their clustering within a particular area, the internal competition for the supplies of cane has increased considerably and promises to increase further with the establishment of new factories. From the list of factories under construction it will be seen that about 24 new factories have been added and most of them are located on the B. N. W. R., which adds to the congestion and the consequent competition for cane. *The competition has adversely affected some of the factories, which, but for the improvement in the quality of the cane, would have been completely wiped out.* The implications of the above statement needs further explanation. The scarcity of the supply of cane is relative and depends upon the crushing capacity of the factory, the acreage under the cultivation of sugarcane, the quality of cane cultivated and the location of rival factory. It is all these factors taken

1 "The rapid and regular transport of cane has an important influence on sugar recovery by ensuring the delivery of fresh cane to the factory. It is therefore recommended that Government should be asked to assist sugar concerns by introducing measures requiring district authorities to grant licences on reasonable terms for private tramways to use public roads and motor lorries subject to necessary safeguards and by the removal of the present restrictions on the carriage of public merchandise by such tramways, where such traffic can be carried without injury to the rights of existing railway undertakings." *Vide* letter of Messrs. Begg Sutherland & Co., to the T. B., Evidence, Vol. I, p. 110.

together which decide the relative scarcity or plenty of the cane supply. Therefore, the internal competition has affected alike the smaller and the larger factories, whether old or new. Larger factories have been affected because of their crushing capacity, which, in order to keep them fully occupied, necessitates larger supply of cane throughout the crushing season, and therefore to procure their cane supplies they have had to extend the area of supply and pay higher prices. For instance, Behar Sugar Works at Pachrukhi has a crushing capacity of 13,640 maunds, but the local area of cane supply is very limited. In fact, in attempts made to allocate geographical areas to different factories, the case of Behar Sugar Works has presented great difficulties. Similarly, the cane supply of Marhowrah and Partabpore Factories has been inadequate because of the internal competition.² *Smaller factories, too, notwithstanding their lower crushing capacity, have been adversely affected by this competition because the larger factories have intruded in their area and have offered higher prices.* This rise in prices of cane has been welcome to some, because it is argued that but for this rise, area under cane would not have expanded so rapidly as it has done. "It is the competition, it is the keenness to get cane which has induced people to spend money and to do their best to get the cane cultivated round about their factories. They paid a better price than they would otherwise have done. All that has been to the growers' benefit."³ *The existence of competition has thus been defended as a healthy feature of the Indian sugar industry, albeit it has caused inconvenience to individual factories.*

Higher prices offered to the agriculturist for cane have doubtless improved both the acreage and yield of cane. *Before the inception of competition factories had almost monopolistic hold on the cane supply within their area and hence often quoted very low prices to the cultivators; victimisation was rampant. Therefore, in so far as internal competition has removed these evils, it is a welcome feature and augurs well for the future. But it entails considerable waste in transport costs and loss in sucrose contents.* This is a very serious objection. The necessity of regulating this competition has therefore been stressed in the larger interests of the industry.

² See Messrs. Begg Sutherland Co.'s letter to the Tariff Board, Evidence Vol. I, p. 102.

³ The evidence of Mr. Dale of Savan Sugar Works, before the T. B., *vide* Evidence, Vol. II, pp. 118-14.

This problem of regulating the supply of cane has been before the sugar factories from a long time, and efforts were made from time to time to solve the difficulty. In 1921 attempts were made by the factories concerned to pool the supply of cane other than what was grown round about the respective factories. The cane grown within the competitive area was to be purchased by the central agency, to be established by the factories, and distributed amongst the members. But the arrangements fell through. As the factories were all along feeling the stress of competition, the negotiations were again revived in 1925, and the conference of the factories was held at Gorakhpur to consider the scheme of zone system. Under the scheme factories were to be grouped into three geographical divisions according to their location and the zones were fixed within which each group of factories was to draw its cane. But the scheme did not meet the approval of all members. According to Mr. Lawrie,⁴ the failure of the conference in arriving at an agreed settlement was due to the refusal of one of the members to accept the scheme. This refusal of the factory in question to agree to the terms of the scheme was, he said, due to the fact that the factory intended to double its capacity for which the supply of cane allotted would have been inadequate. But in this case it has been suggested⁵ that although the objection to the scheme came from one particular factory, a group of factories were chary about it. They thought if they agreed to this particular arrangement, the whole management would go to Begg Sutherlands and that they might be left in the lurch. This shows the distrust between the European and Indian group of factories and therefore the difficulty in arriving at an agreement lies in fixing upon the management of the central agency. In 1929 the proposals to revive the pool under the cane buying officer were made, but the attempt failed to fructify, because of the high cost of the officer and his staff and the distrust between the two groups of factories referred to above.

From what has been adverted to above it will be seen that the problem of regulating the supply of cane is more real to-day than what it was when the Indian Sugar Committee reported. If the recent expansion of the sugar industry is to last it is essential that supply of sugarcane to the factories should be most economic and efficient. It should however be noted that in any scheme which comes into vogue, either devised by the factories themselves,

⁴ *Vide Evidence*, Vol. II, p. 239.

⁵ *Vide Evidence of Mr. Bannerjee, appearing on behalf of the Sugar Technologists' Association.*

or the State, adequate remuneration to the cultivator should be provided for.

Suggestions have been made for a system of licensing of factories and establishment of system of zones. In favour of the zone system it is suggested that when an area is given over to the miller to develop in collaboration with the grower, the interests of both will benefit. It is added that the object of the miller is to get his raw material as cheaply as possible, and this he can do best by increasing the production of cane per acre. With an increase in the yield the net income of the grower will increase even though the price paid for the same is lower. It is further stated that with more concentrated areas under cane in the immediate vicinity of the factory, cost of transport and dryage losses in transit will be reduced and the miller will be able to utilise part of these savings in paying a better price for cane.

The zone system was considered by the Sugar Committee in 1920 and the Indian Tariff Board in 1931 and was rejected on both occasions. The Tariff Board pointed out "competition between the factories is the only definite safeguard which the cultivator possesses for the maintenance of cane rates, and it would appear inequitable to deprive him of this guarantee unless effective statutory provision could be made for the rates which could be paid for the cane. As we have seen, any such provision would be difficult to enforce. Generally we feel that the question of the distribution of cane, areas of supply and the fixation of zones is a matter to be determined by the factories concerned, and we believe that the problem is not insoluble if, as may be hoped, an effective association of manufacturers comes into being as a result of the introduction of protection."

The weakest point about the zone system, according to Mr. Srivastava, is that whilst it will certainly deprive the grower of the benefits he may have got from selling cane under competitive conditions, there can be no equal assurance that the factory to which a particular zone is allotted will assist the grower in improving cane cultivation. This will remain dependent on the miller's own sense of what is his duty towards the grower. There are many factories which for several years have had no competition from other factories in their local area of supply, but, in spite of this virtual monopoly, they have done nothing to help cane cultivation. There will be nothing to prevent the same thing happening under the zone system.

The contention that the zoning system would be successful if the price for cane is fixed by the Government does not find favour with Mr. Srivastava. According to him, it is likely to

prove impracticable as well as ineffective—impracticable, because it is so easy to get round such a prescribed scale specially when, as is the case at present, the seller is willing to accept a lower price; and ineffective, because the payment of a higher price does not necessarily mean that cane cultivation will be improved on lines most suited to factory requirements.

The views expressed by the Sugar Technologist cannot be readily accepted. The case against the zone system seems to have been rather overstated. No doubt the zoning system has its own limitations in so far as it aims to eliminate the competition amongst the factory owners and therefore may work against the grower by depriving him of the sole protection against low prices for cane. But here it should be noted that the need for restricting unhealthy competition for cane supplies has been accepted at all hands and therefore to the extent to which the zone system attempts to eliminate this competition, it should be welcome. The protection against too low prices can be provided by adequate statutory provision for the same as has been done in the United Provinces and Behar. Now that the excise duty has been levied, the proceeds should be utilised in organising the cane grower. Cooperative societies would be very useful in this connection. It should be realised that until the growers are properly organised no statutory provision of minimum price would be effective; it can at best be a mere palliative. Organised cane growers will have little to fear from the zone system. Besides, the benefit accruing to the agriculturists from the competition of the factories is often exaggerated.

According to those who advocate the desirability of zone system, zoning may be secured by assigning to each factory an area of operation or zone from which alone it may draw its cane supplies; a factory may not obtain cane from outside the zone without special sanction. The factory would not be bound to take the whole of the cane produced in the zone; it would only take as much as it needs, and the surplus would be disposed of as at present, *i.e.*, in making gur and Khandsari sugar. The factory would normally arrange for its full supply of cane beforehand in accordance with its probable requirements; this would be bonded cane, for the supply and receipt of which both parties would be bound by agreement. This gives adequate protection to both the parties in so far as the factory is bound to take this bonded cane and the cultivator to deliver it.

The object of zoning is two-fold. Unnecessary friction and competition between neighbouring factories can be avoided. The other advantage is that the factory will have an incentive to

develop its zone from the point of view of cane cultivation without fear of a new factory being started in the neighbourhood which would take advantage of its pioneering activities. For instance, a factory wants early ripening cane at the beginning of the season and a late ripening variety at its end. It can encourage the cultivation of these varieties in its zone and nurse the same—to the mutual benefit of both the growers and itself.

Mr. Noel Deerr rightly points out: With the adopting of a zone system, that is to say, with an area given over to the miller to develop in sympathy with the small holder, there should follow at once an association of agriculture and manufacture for the common benefit of both interests. It will be the object of the miller to reduce the price of raw material and this can best be done by increasing the production per acre, and with an increment in the yield, the net income of the small holder will increase. With more concentrated areas adjacent to the factory, cost of transport and the extent of losses associated with transport will necessarily decrease.

The miller capitalist in his own interest, when established in a zone and protected from interlopers, should incur the outlay necessary to establish irrigation as part of his capital expenditure or otherwise should regard part of the profits arising from the ample protection now afforded as earmarked for investment in this way. Such a scheme may be expected to be remunerative from the outset. It is not proposed that the small holder should be given water for nothing. The whole cost of the water would be recovered as an advance against cane supplied.

Objections to zoning are of two kinds. There are some who consider it impracticable to enforce, others go further and consider it unnecessary or even harmful to the interests of the cultivators.

The practical difficulties do not appear to be very serious. The size of the zone would be fixed in relation to the crushing capacity of the factory by a committee consisting of two representatives of growers, two of the factory and one nominee of Government. Even if this requires the taking out of a licence or permit by new factories this is not likely to put off prospective factories, as it is in the interest of the factories themselves not to start in unhealthy competition with others when large tracts containing sugarcane are awaiting development. There would be no prohibition against the making of gur and Khandsari sugar in the zone; hence there is no problem about the surplus cane. There need be no fear that the grower will not sell to the factory, for if he can get a reasonable price there is no reason why he should not do so; and a special provision can be made for obtain-

ing cane from outside the zone in exceptional circumstances. No provision is necessary for compelling cultivators to sell to the factory; but a factory will have to take and the cultivator to supply the bonded cane, contracted for before the beginning of the crushing season.

Zoning does not stand by itself but goes along with the fixation of minimum price. If such a price is fixed, the objection urged against zoning loses its force. Even if it is considered by growers that zoning is unnecessary it should be accepted by them on the ground that it is the one condition on which they can secure the agreement of factories to the fixation of a minimum price.

Having emphasised the necessity of the zoning system we shall now analyse the problem of the minimum price for cane. In this connection the scheme of the Sugar Technologist may be noted with interest.

The exact system to be adopted for determining the fair price for cane is a matter of considerable importance. Various proposals in this connection have been put forward in the past, but none of them has proved to be generally acceptable. Most of these systems have one feature in common, namely, that the price of cane varied with the extraction percentage obtained by a particular factory or group of factories. A factory with a higher extraction percentage would pay more for cane than one with lower percentage. This, it was considered, would act as an incentive for improving factory efficiency to the extent that the more efficient the factory, the more assured would be its cane supply by reason of its paying a higher price for cane. From the growers' point of view, the system was intended to provide encouragement for improving the quality of cane.

Whilst it is true that the system possesses these advantages it suffers from one serious defect, in that it places a premium on inefficiency by enabling an inefficient factory to buy its cane more cheaply than a more efficient one even though the cane may be of the same quality. The effect of this is likely to be much more serious when the manufacturers' margin of profit happens to be large. Under such conditions there would be a tendency to increase the production even though this may involve a slight lowering of extraction, as the aggregate profit would be increased thereby. If the price of cane is reduced with a drop in extraction a further incentive will be provided for increasing production at the expense of efficiency and in course of time, this may lead to a rapid all-round lowering of efficiency. To remedy this defect, a sliding scale may be devised.

The sliding scale proposed by Mr. Srivastava is based on the assumption that the price paid for a maund of cane should be half the price of sugar made therefrom. The special feature of the sliding scale proposed is that the extraction of sugar per cent cane would be fixed for five years in advance for each important sugar producing tract, or at least, for areas of considerable size and it will be gradually increased each year.

Enforcement of the Scale:—Doubt is often expressed regarding the possibility of enforcing any scale of price fixed by law, on the score that methods of evasion are so easy and numerous. This, however, need not be such a serious difficulty as it is generally made out, provided the scale laid out is fair to both the parties. The interests of factory owners and growers are inseparably connected, and the owners will no doubt realise that any portion of price paid by them which is withheld by middlemen and fails to reach the grower is so much money wasted so far as the ultimate interests of the factory are concerned. Though penalties of any proved breach of the law must be provided, their enforcement should not be frequent. The real sanction will be the knowledge by the grower that he is entitled to a certain price for his cane. Hence, factories, should post notices at all places where cane is being purchased by, or for them, giving particulars of the price calculated according to the prescribed scale as well as charges on account of cartage, railway freight, etc. Any disputes might be referred to cane marketing boards set up for groups of say five or six factories. These boards might be presided over by a Government official and their membership might comprise representatives of factories and growers; their decisions might be made enforceable in the same way as awards of arbitration. For weighing cane Government licensed weighmen could be provided, whose licence would be liable to forfeiture if they were found guilty of malpractices. Government inspectors might be employed for inspecting weighbridges and checking the work of weighmen. Factories might permit their books to be examined periodically by some Government official, who would certify that payment had been made according to the prescribed scale. Factories might also be required to submit periodical returns in a prescribed form giving particulars of price, cartage, freight, dryage, commission etc., paid for cane received from their own estates or from growers, at the factory gate or other purchasing centres.

The most important point about Mr. Srivastava's Scheme is that it attempts to connect the selling price of sugar with the price payable for cane, because the real problem before the industry

is not so much a minimum as a fair price for cane of standard quality. It is not intended to convey that Mr. Srivastava's formula is correct in all its details and that it should be the basis of the scale of prices to be worked out. Far from it. The suggestion is that the cost of production of the parties should be properly worked out and the prices fixed accordingly. It is obvious therefore that when the price of sugar rises the factory should be able to pay proportionately more for the cane as the manufacturing charges remain fairly constant.

The problem of fixing a minimum or reasonable price for cane was discussed by the Sugar Committee of the Imperial Council of Agricultural Research and the following proposals were carried:—

That in present circumstances and since protection has been granted to the sugar industry, it is necessary that steps should be taken to secure an equitable distribution of profits between the grower and the miller.

That the fairest way to insure an equitable distribution would be to link in some way the price of cane paid to the grower with the market price of sugar and preferably also with the quality of cane.

That legislation is necessary to secure such price regulation.

That the settlement of a suitable formula should be left to Provincial Governments, provided that in the case of adjoining provinces, they should meet in a conference and then come to a mutually agreed decision.

The necessity of fixing the minimum price was thus accepted and the Provincial Governments were authorised to formulate the schemes suitable to the local conditions. As the United Provinces Government was foremost in pressing this problem, it gave a lead in laying down the rules for the regulation of cane prices. The Government of Behar soon followed the lead. The Communique of the United Provinces Government Industries Department dated 25th October 1934, is interesting to note.

The main objects of these rules are to ensure that cane-growers get a certain minimum price for cane supplied by them for use in a sugar factory; that this price actually reaches the growers and does not go primarily to middlemen; that weightments are made correctly; that payments are promptly effected; and that no unauthorised deductions are made from the price paid. The Government realises that the fixation of a minimum price is a new experiment in this country and that some difficulties are bound to arise in connection with its enforcement; but it is hoped that with the goodwill and co-operation of both cane growers and

sugar factory owners these difficulties will be surmounted and that these rules will be to the mutual advantage of all concerned.

It is provided in the rules that the minimum price paid for sugarcane should be *five annas* a maund both at the factory gate and at outstations when the average of ten highest price quotations at Cawnpore for first grade sugar made in the United Provinces for delivery on a f.o.r. factory basis is Rs. 8-8-0; and the price of cane should increase or decrease by 3 pies according as the said average price of sugar goes up or down by 8 annas.

It is necessary to make it clear that the minimum price fixed has to be paid to the grower at the purchasing centre. This implies that the cost of cartage to the purchasing station must be borne by the grower, while the cost of transport, if any, from the purchasing centre to the factory will have to be borne by the factory owner. There is nothing to prevent a factory owner from paying a higher price than the minimum fixed, especially for the purchase made at the factory gate and for purchases made towards the end of the cane crushing season.

Difficulties are, doubtless, likely to arise in connection with the supply of cane of poor quality. Factory owners are at liberty to refuse to take such cane and it is hoped that cane growers will soon learn that if they wish to sell their cane, they must see that it is properly stripped and of good quality. The question of burnt cane is a little more difficult, but the amount of such cane supplied to a factory is likely to be negligible.

In order to ensure that the price paid reaches the grower, it is provided in the rules that cane should be purchased only from the grower or his authorised representative or from a licensed purchasing agent. A representative of the grower may deliver cane on his own behalf, but payment for the cane will only be made to him if he is authorised in writing in that behalf. Purchasing agents will be selected by factory owners and licensed as such by the District Magistrate on payment of a nominal fee; but they will have to furnish security to the factory owner, and the latter will be held responsible in case a purchasing agent does not pay the grower for the cane bought from him.

It is provided that Cooperative Societies for cane supply should be treated as authorised agents of the growers, but they may also be licensed as purchasing agents if they so desire.

The Government of Behar and Orissa by their notification dated 10th October 1934, laid down that the minimum price of sugarcane intended for use in a factory in Behar will vary according to the price of sugar determined by the average of the highest price quotation for first grade sugar in respect of twelve

different factories (or such smaller number as may be available) situated in North Behar having the highest price quotations on a f.o.r. factory basis.

The Schedules adopted by the respective Provinces for fixing the minimum price according to variations in the price of sugar were as follows:—

THE UNITED PROVINCES

Average Price of Sugar.				Corresponding minimum price for sugarcane intended for use in:—	
				Open par factories.	Vacuum par factories.
Rs. a.	Rs. a.			a. p.	a. p.
Above 6	8 to 7	0	. .	2 10	4 3
„	7 0 to 7	8	. .	3 0	4 6
„	7 8 to 8	0	. .	3 2	4 9
„	8 0 to 9	0	. .	3 4	5 0
„	9 0 to 9	8	. .	3 6	5 3
„	9 8 to 10	0	. .	3 8	5 6

BEHAR

Average Price of Sugar.				Corresponding minimum price for sugarcane intended for use in:—	
				Open par factories.	Vacuum par factories.
Rs. a.	Rs. a.			a. p.	a. p.
Above 6	8 to 7	0	. .	2 6	4 3
„	7 0 to 7	8	. .	2 8	4 6
„	7 8 to 8	0	. .	2 10	4 9
„	8 0 to 8	12	. .	3 0	5 0
„	8 12 to 9	4	. .	3 2	5 3
„	9 4 to 9	12	. .	3 4	5 6
„	9 12 to 10	4	. .	3 6	5 9

With regard to the minimum prices as laid down in the foregoing schedule, it was suggested on behalf of the manufacturers that instead of the average of the ten highest priced quotations at Cawnpore for the 1st grade sugar being taken as the basic rate, the basis should be the average selling price of the production of every sugar factory in the United Provinces, not

only for first grade sugar, but also for second grade sugar. It was contended that the average of the ten highest priced sugars in the United Provinces will mean that the rate will be based on a price which the large majority of factories in these provinces will not be able to obtain. The factories in the Meerut Division, it was added, owing to their proximity to the large markets of Delhi and the Punjab obtain from 8 annas to Re. 1 more in price for first sugars than those factories situated in the Gorakhpur Division, and as such a basis would be unfair to those factories not so favourably situated, geographically, with regard to their markets, most of the sugar produced by the factories in the Gorakhpur Division having to be sold subject to higher freight in Bengal and Calcutta.

The position taken up by the manufacturers cannot be accepted as we shall presently see. The lower price obtained by many factories for their sugar is due to their financial weakness, which compels them to sell their product as soon as it is manufactured in order to get the finance for working the factory. It would be obviously unfair to take into consideration the quotations of such factories as it would mean penalising the cane grower for faults of the factories. Further, factories can (and many actually do) produce almost all sugar of first grade. If some factories have not installed up-to-date plant or employed suitably qualified staff for getting such results, they are bound to get lower prices for their sugar, but that is no reason why the cane grower should also be paid less for the cane. Besides, the average of ten highest price quotations for first grade sugars will give a figure which will represent good average working conditions and will be fair to growers and will at the same time provide an incentive to the more backward factories to make improvements.

Now that minimum cane prices have been fixed in these two Provinces, it is imperative that concerted efforts should be made to draw out a scheme for zoning, because in the absence of such a scheme agricultural technique will not improve. Further, the most formidable objection to the zoning system has been removed by the provision of minimum price, and the small holder can no longer be exploited for the benefit of the manufacturer. If the manufacturers are not given the security they need the very object of fixing minimum prices would be defeated. Zoning and price legislation should be linked together. So also the cane growers needs be organised on right lines if continued prosperity of the industry is to be secured.

ECONOMIC INQUIRY OF VILLAGE NIGOHAN DISTRICT RAE BARELI

BY

A. P. MATHUR, M.A.

Nigohan is a village in Pargana Rokha, Tahsil Salon, District Rae Bareli. It is situated on Jais-Rae Bareli road, about $12\frac{1}{2}$ miles from Rae Bareli city. The village site is about four furlongs from the Pucca road with which it is connected by a Kuchcha feeder. The nearest railway station is Fursatganj on the E.I.R. line about a mile from the village.

The village extends over an area of 1873 acres. It includes 17 Purwas with one Abadi Khas. It has villages on all its sides, being surrounded on the north by village Kisaria, Salempore, on the south by Badhan Mahmudpore, on the east by village Basauni and on the west by village Brahmri. There are no hills or forests near the village. The nearest river is Sai flowing at a distance of about fourteen miles. The Mandi closest to the village is Fursatganj near the railway station which is held twice a week and where all the necessary commodities are available.

The population of this village at the last census was 1587, of which 1475 were Hindus, 57 Muslims and 55 persons of other castes. Among Hindus the Ahirs predominate and are followed by Muraos and Brahmins. Other well represented castes are Pasis, Chamars and Kories. The following table gives an idea of the total number of families of the principal castes:—

Caste.	No. of families.	Caste.	No. of families.
Ahir	71	Kories	40
Murao	60	Chamars	25
Brahmins	55	Muslims	6
Pasi	44		

Occupation.

The village is purely agricultural. There is no trade beyond that in grain and no manufacture of any importance. The entire population depends on land directly or indirectly. Of the dependents on land a large majority are sub-tenants holding land from under-proprietors and occupancy tenants. A fairly large number of statutory tenants and heirs of statutory tenants

are also represented. There are twenty under-proprietors who under Oudh Tenancy Act enjoy special privileges of heritable and transferable rights in land. The following table gives the area of land held under each class of landholder:—

Class of landholder.	Amount of land in Bighas (standard) (approximately).	Class of landholder.	Amount of land in Bighas (standard) (approximately).
Zamindar . . .	2611	Heirs of Statutory	
Under-proprietors	341	tenants . . .	273
Occupancy tenants	43	Non-Statutory	
Statutory tenants .	409	tenants . . .	127
Other Statutory		Sub-tenants . .	198
tenants . . .	246		

There are a few artisans like potter, weaver, Telis and carpenters. About hundred persons are field labourers. There is a certain number of professional workers in the village like Dhobies and Nais. Eighteen persons of this village are employed outside—Four Brahmins are employed in Benares state on petty jobs, six Kories in Cawnpore mills, four Pasis in railways on menial jobs in Sindh and Hyderabad, four Dhobis in Bombay and Karachi.

Land.

The area of cultivated land in the village is 1331 Bighas or 44·7 per cent of the total area. The rest is non-agricultural land including both non-cultivated and non-cultivable. The details of non-agricultural land together with the area under each class are given below:—

Class of Non-Agricultural land.	Area (in round figures).	Class of Non-Agricultural land.	Area (in round figures).
Usar . . .	388 Bighas.	Banjar . . .	655 Bighas.
Tanks and Nalas		Gardens . . .	181 "
(Abi) . . .	303 "	Parti Kadim . .	2 "
Abadi . . .	122 "	Parti Jadid . .	19 "

The quality of agricultural land varies widely in this village. A large portion of the land is Do-Fasli. The area under Ek-Fasli is about three hundred (300) Bighas. The best land in the village is Kachhiana growing vegetables. The area under this kind of land is only 20 Bighas. It commands the highest rent in the village. Other lands in order of fertility are:—Goend Do-math, Manjha Do-math, Palu Do-math, Palu Matiar etc.

Below is given their total area and approximate rents in the village:—

Land according to fertility.	Area (approximate). Bighas.	Rents (approximate). Per Bigha.	REMARKS.
Kachhiana . . .	20	Rs. 10	} Used for growing vegetables.
Goend Do-math . . .	200	„ 8	
Manjha Do-math . . .	600	„ 6	} Nearest to Abadi and fertilized mostly by human excreta.
Palu Do-math . . .	400	„ 4	
Palu Matiar . . .	105	„ 3	

Production.

There are three crops grown in this village in a year. Besides the two principal crops of Rabi and Kharif an extra crop known as Zaid crop is also grown. The details of different crops, irrigated and non-irrigated with the area under each in the year 1933-34 are given in the tables below:—

KHARIF IRRIGATED.		KHARIF NON-IRRIGATED.	
Crop.	Area (in round figures).	Crop.	Area (in round figures).
Dhan Kuari . . .	328 Bighas.	Jowar . . .	95 Bighas.
Jarahan . . .	26 „	Jowar with Arahar . . .	163 „
Mandua . . .	54 „	Dhan Kuari . . .	97 „
Vegetables . . .	1 „	Dhan Jarahan . . .	10 „
Ukh (Sugarcane) . . .	1 „	Khalis Arahar . . .	3 „
		Kodon . . .	29 „
		Urd Moong . . .	216 „
		Mandua . . .	12 „
		Sawan . . .	5 „
		Vegetables . . .	18 „
		Kakun . . .	3 „
		Jowar Chari . . .	2 „
RABI IRRIGATED.		RABI NON-IRRIGATED.	
Crop.	Area.	Crop.	Area.
Wheat . . .	341 Bighas.	Wheat . . .	11½ Bighas.
Millets . . .	47 „	Chana (Gram) . . .	92 „
Jo . . .	4 „	Matar . . .	7 „
Baijarh . . .	226 „	Alsi . . .	4 „
Matar . . .	85 „	Sarson . . .	1 „
Potatoes . . .	5 „		
Vegetables (Gajar, Mooli) . . .	5 „		
Tobacco . . .	1 „		
FASIL ZAID (IRRIGATED).			
Cucumber . . .			2 Bighas.
Sawan . . .			155 „
Tobacco . . .			1 „

Irrigation.

The sources of irrigation in this village are wells and tanks. There are in all 89 wells and 79 tanks of which 81 wells and 50 tanks are employed for purposes of irrigation. The total area irrigated by wells amounts to nearly 800 Bighas or 500 acres while the area irrigated by tanks comes to 200 Bighas only. The existing facilities of irrigation are too inadequate for the agricultural needs of this village. There is a great need for an irrigation channel or Pucka reservoir which could retain water during the hot season. Some of the tanks and wells of the village get dried up in severe summers when the need for watering the fields is felt most.

Character of Holdings.

The land in this village is exceedingly fractionized and fragmented. There are a large number of pieces of land which are wholly uneconomic and yield not even a bare pittance to their owners. The average quantity of land per family comes to 4·9 Bighas or less than one Bigha per head (taking average size of a family of 5 persons) in this village. The economic holding for this village is estimated at $7\frac{1}{2}$ Bighas. This has been calculated by considering the average yield of a land of an average fertility and the minimum needs of an average rural family. The holdings are not only small and sub-divided but also scattered and fragmented. The landholders hold lands at different places sometimes at considerable distances. Not infrequently the lands of a single individual are a mile apart. This makes cultivation expensive and supervision difficult and is sometimes a fruitful source of litigation. From general inquiry and the review of the Patwari's map it was found that consolidated pieces of lands beyond 15 Bighas were conspicuous by their absence. The distribution of consolidated holdings in this village is as follows:—

Holdings below 1 Biswas	66 (roughly)
" " 5 "	215
" between 5 and 10 Biswas	250
" " 10 " 20 "	400
" " 1 " 5 Bighas	500
" " 5 " 15 "	25

The evils of sub-division and fragmentation have been progressively increasing. The excessive pressure on land coupled with the existing laws of succession and inheritance have

been responsible for the perpetuation of these evils. If no effort is made to check them a time will shortly come when land will be impossible to cultivate. There need to be more diversions to relieve agricultural pressure and the laws also require to be amended. Efforts should further be made to consolidate the scattered patches either by compulsory expropriation or by voluntary exchange or through Cooperative Societies.

Standard of Living.

Owing to the heavy pressure on land it has become difficult for many to depend upon it absolutely. They have either to supplement their income or to curtail their expenses below minimum. In this village for want of subsidiary openings a large number is not even able to procure a living. It has been estimated that 25 per cent of the total population of this village can afford to have meals both times. About 50 per cent afford to have only one-time meal and Chabaina for the other time. The rest get Chabaina only once or twice and that too not in a sufficient quantity. Thus they go through life half-fed. This makes them devitalized every day and more liable to serious diseases.

As regards clothing the majority of cultivators do not possess sufficient clothing to protect themselves from cold. Most of them have one Dhoti of small size and one Bandi half-sleeved. They also have a Pichaura which is used in common among the members of the family. This is all that many pass their winter with. During summer they do not need to have many clothes. But in severe winters these clothes are altogether insufficient. The Kathris and Gudris that they have to cover themselves with at night do not give them any warmth. They have therefore to sleep closely huddled together. Sometimes as many as four members of a family including husband, wife and two children have to sleep under one cover. Sleeping together, which is quite common among the poor for want of warm clothings in winter, is a potent cause of higher birth-rate and low standard of living. Out of the 16 representative families investigated, 5 families reported to have never used blankets or Razais in their lifetime. Two families both being Brahmins, made one Razai each last year, i.e., 1933-34 and purchased blankets in previous years. The remaining 9 families were such which used very old Razais giving insufficient warmth. On the basis of these observations it may be safely generalized that nearly 12 per cent of the total population of the village can protect themselves against cold, 55 per cent remain half-protected and the rest unprotected. It is the last class of people who suffer most from such serious diseases like

Bronchitis, Pneumonia etc., due to exposure, which every year takes a huge toll of their lives.

Housing.

There are hardly any masonry buildings in the village except one temple situated in the heart of the city. All dwellings are mud-hovels thatched with straw and are constructed closely together. The low thatched huts without any opening except at the low entrance are extremely ill-ventilated. The scarcity of house sites does not allow the cultivators to build separate sheds for the cattle as a result of which cattle and men live in the same dwelling. The majority of the houses in the village have 2 to 4 small rooms of generally of $8' \times 10'$ in dimensions. In some cases there is a verandah of $8' \times 3'$, a part of which is utilized for kitchen. The inside of the house remains clean where cattle are separately kept but where cattle and men live together the house is horribly dirty.

The conditions of living of a large section of people of this village are far from satisfactory. They have neither sufficient food, clothing nor shelter which are the prime requisites of life. They lead a wretched life and have become used to it. They can now hardly think of ameliorating their lot.

Sanitation.

The village on the whole is clean and presents a tidy appearance. This is due partly to the careful vigilance of the village Panchayat and partly to the sanitary arrangements of the District Board. The Panchayat is an active body in this village and besides imposing fines for filthiness it makes a kind of propaganda for reforming the dirty habits of the villagers by giving them lectures on the utility of neat habits. Magic lanterns are also sometimes shown to the effect by the District Board authorities. Very few cases of epidemics are known to have occurred in this village.

Indebtedness.

Indebtedness is a special feature of the rural economy all over India. In this particular village it is not uncommon. There are hardly 5 per cent cultivators who are free from debt. There is no co-operative society in this village and the village people have to depend upon moneylenders and Mahajans for meeting their financial needs. There are two Mahajans in this village who deal in money-lending. A few Kalwars of Fursatganj also advance loans. Some cultivators borrow money from persons outside the

village. The loan consists both of cash and kind. Generally speaking 66 per cent of the debt of this village is in cash, the remaining in kind. The debt incurred just before the harvests are mostly in grain, because this is the time when the available supply of food runs short and cultivators require grain for their own use. It is paid as soon as the crops are ready and the harvesting is finished. Kind loans are also taken for seed when sowings begin. For cash loans the rate of interest prevalent in this village is from Rs. 1-8-0 to Rs. 3 per cent per month. Sometimes it goes even higher to Rs. 4 and Rs. 5. The rate varies with the kind and amount of security offered. For loans for seed the usual rate of repayment in the form of an increased quantity of the commodity itself is $1\frac{1}{2}$ times the original quantity advanced. This is known as "Deorhi rate" and is paid by cultivators who cannot afford good security. For those who can offer a good security the rate is $1\frac{1}{4}$ times the principal or Sawai. For loans of grains for subsistence almost the same rates apply. If "A" borrows in December for maintenance he has to pay after the Rabi harvest the principal plus one-half or one-fourth of it thereon. Sometimes no interest is charged where the grain advanced is for a month or two before the harvesting season and is repaid just after the harvest. The Zamindar and Ziledar of the village advance loans in grain for food to their tenants in lieu of certain services.

There is a general feeling among the villagers that Mahajans are very useful for them. They are regarded as more accommodating than the co-operative societies of the Government. The cultivators prefer borrowing from Mahajans at 24 per cent per annum to taking loans from co-operative societies at far more reasonable rates. This is partly due to inertia on the part of the tenants as there are fewer formalities and less trouble over securing loans from Mahajans, and partly to the fact that the Mahajans do not press them much for repayment in regular instalments, and even accept loans in grains.

Purpose of loans.

The cultivators borrow money generally for the following purposes: 1. Repayment of earlier debts, 2. Marriage and other social functions, 3. Payment of land revenue or rents, 4. Seeds, 5. Wages of labourers, 6. Litigation, 7. Purchase of cattle, 8. Sinking of wells, and 9. Subsistence. In this village out of the sixteen families nine families borrowed money for marriages and pilgrimages and other ceremonial purposes, three families for the purchase of bullocks and seeds,

two for subsistence, one for litigation and the one was free from debt.

Extent of indebtedness.

The total indebtedness in this village is roughly estimated at Rs. 50,000, of which indebtedness to the extent of Rs. 35,000 is supposed to be in cash and the rest in kind. Half of the total debt is shared by the Under-proprietors. The distribution of indebtedness over families of different castes is given below :—

Amount of debt.	No. of families.	Caste represented.
<i>Nil</i>	1	Brahmin.
Rs. 100 and below	5	Two Pasis, one Kori and two Ahirs.
Rs. 100 to 200	7	Two Chamars, two Muraos, and three Ahirs.
Rs. 201 to 400	2	One Murao and one Chamar.
Rs. 401 and over	1	Brahmin.

The table gives an idea that one family out of sixteen is only free from debt. In other words ninety-two per cent are indebted. The amount of indebtedness is highest among Chamars and Muraos. Indebtedness between Rs. 101 and 200 is very common.

Social customs.

The striking feature of the social custom of the villagers is the practice of early marriage. This practice obtains more commonly among the low caste people such as Chamars, Pasis etc. A boy is usually married at the age of ten and a girl at the age of eight or nine. Marriages at earlier ages also continue to be performed in spite of the Sarda Act. The baneful influences of this pernicious custom are seldom realised by the majority of cultivating parents. They consider marriage as an obligation and the sooner they get over it the better.

The influence of caste also weighs considerably with the village people who are divided into water-tight compartments on the basis of caste. The so-called superior castes do not mix with persons of inferior castes and always look down upon them. The Brahmins of this village have been endowed a privileged position by their fellow beings. Even howsoever poor and degraded a Brahmin might be he must be respected and revered by persons of all other castes and creeds. The rigidity of the caste system

is a great hindrance in all matters of co-operative activity in the village.

Education.

There is one Upper Primary school maintained by the District Board. It has been existing in this village since last 66 years and is considered to be one of the oldest institutions in the district. The education is given to boys and girls on the payment of a small fee of one to two annas per month. It is due to this school that people of this village have got some form of elementary education. There are about 150 persons of the village who can read and write their names. Those possessing higher qualifications are as follows:—Graduates 2, Intermediate 1, High School 2, and seven getting their education in sixth or seventh classes in the High School at Rae Bareli. On the whole eleven per cent of the total population is literate in the sense mentioned in the census report.

Agricultural practice.

Agriculture in this village is carried on on the old traditional lines. The agriculturists do not use any modern method or improved implements. The same old *Lotna* and *Nagra* ploughs continue to be used by them. They have not even heard of the Meston plough. As regards manure almost the whole of cow-dung is used for fuel purposes except during the four rainy months when it is applied to the fields. The cultivators throw manure near their houses in heaps on the surface, and apply on the fields in this raw condition. The practice of rotting the manure in pits is not generally followed. They have still to learn better methods of farming. Demonstration plots if introduced in this village would do immense good to these people.

Labour and its remuneration.

There is quite a large number of field labourers in this village. They are not wholly landless but have to supplement the income they derive from the small pieces of land they occupy. They have therefore to work on fields of other cultivators who require their assistance on petty payments. They do such ordinary jobs as weeding, ploughing etc. The general rate in this village for such purposes is 2 annas plus Chabaina for one time in a day or 2 annas 3 pies without Chabaina. Sometimes they are paid wholly in kind, i.e., seven Paus or $1\frac{3}{4}$ seers of grains per day. The professional workers like Dhobies, Nais and Chamars are also paid in kind. The Dhobies and Nais get 20

seers of grain per family in two seasonal instalments. The Chamars get 8 seers per season for the leather work they do in connection with the ploughs. They also get the skin of dead animals, but they have to give in return to the owner of the animal, dressed skin of one 'Pur.' The Mahtars of this village do not clean latrines. They generally do such miscellaneous work as Sup making, basket making etc.

Industries.

There are no industries in the village worth the name. There are few whole-time artisans. There is one potter who makes utensils for domestic use and is paid either in cash or in kind as fixed by each family. There are six Telis who press seeds of all kinds both at their own instance and to order. For the seeds he presses of others he takes only the cakes in return for the wages. There are two Barhais or carpenters in the village who make wooden wheels and the body of the village carts. They generally take two months to complete a cart. The cart is sold for Rs. 30 to Rs. 40 and the cost of raw materials amounts to Rs. 15 to Rs. 18 per cart. The net profit to Barhais in this business is not much unless of course they supplement the earnings by doing subsidiary work alongside. There is one whole-time weaver or Kori who manufactures Dhories, Ghazi and Ghara. The yarn used by him is mostly mill-made. The weaver takes four days to complete one pair of Dhori. About Rs. 1-4-0 is spent over the raw materials of a pair of Dhori which is sold in the Mandi for Rs. 1-14-0 or Rs. 2 as the case may be. This hardly gives him a profit or wages of 12 annas per pair or 3 annas per day. When the women and children also help the weaver his work is done sooner and his earnings are greater.

Marketing.

The nearest Mandi is Fursatganj which is held bi-weekly. The cultivators take to this Mandi what little is left after paying to the Mahajan for his loans and keeping a part for domestic use. If the surplus produce is great it is handed over to the village Beopari at the current Mandi rate for ready payment. The Beopari always remains at the watch of such surpluses so that he might market in bulk in the city Mandi for higher prices. The cultivators seldom take their produce to the city. They prefer to dispose it of on the spot at a lower rate rather than face the difficulties of marketing. The chief reasons for which they do not dare go to the markets for the disposal of their commodities are:—firstly, they do not possess their own carts, secondly, they

cannot afford to bear the transportation charges, thirdly, they want immediate payment and do not like to wait unnecessarily and lastly, they are ignorant of the marketing conditions.

The chief articles of export from the village are wheat and oil-seeds while import consists of such things as clothes, loose cotton, spices, salt, metals etc.

General condition of the tenants.

The generality of tenants are not very happy in their relationship with the Taluqdar of the village. They complain of the frequency of ejectments sought by the Taluqdars on flimsy and false grounds in order to extract Nazrana every time the land is let out. The practice of Nazrana which prevails commonly in this village due probably to the competition for lands is a great curse. The Nazrana varies from Re. 1 to 51 rupees per Bigha. The rents in this village are also very high and in many cases the land leaves practically nothing after the payment of rents. To the cultivators there is neither fair rent nor freedom from ejectments. It is the denial of these privileges which has considerably worsened their conditions.

Suggestions.

The first condition of an efficient farming is the grant of the two privileges the denial of which constitutes the chief features of the rural economy of this village. The Government should try to look into such cases and see that the grievances of the tenants are redressed. The pernicious system of Nazrana which lies at the root of many other vices should be stopped forthwith.

The other way of agricultural improvement is by relieving the existing pressure on land. There should be more diversions for the villagers both which can employ them full time and those which can engage them part time in works subsidiary to agriculture. No effort has so far been made to encourage the industries that already exist in the village or to introduce the new ones. Small scale industries which may usefully employ the cultivators in their spare hours may be introduced. These may be hand-spinning, basket making, rope making, poultry farming, bee-keeping and alike industries for which there is a demand in markets. Oil crushing, flour milling and cotton ginning or soap making are some of the industries which can be usefully taken up as whole-time occupations. To start with both Government initiative and help will be required in ample measure. The work of rural industries can be successfully carried on through Co-operative Societies which will both advance facile credit to the

artisans and help them in the marketing of their produce. In fact the problem of marketing is far more important than finance. If there is a market for an industry there can be no dearth for its supporters. The prime object of the Cooperative Societies should be to find the markets for the industries whom it means to foster.

The existing agricultural practice needs to be improved. Modern methods of agriculture and improved implements should be introduced in the village. There is scope for Scientific farming.

Among reforms in the life of the villagers may be mentioned the prevention of waste and extravagance on conventional necessities, such as births, deaths and marriages, which necessitate contracting of huge loans. The loans should be taken only for productive purposes. Loans for non-productive purposes should be avoided as far as possible.

INDIA'S AGRICULTURAL MOTTO: "FULL SPEED AHEAD"

BY

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During the past decade the mind of India was obsessed by the constitutional issue, and no serious attention was paid to the improvement of the economic and social condition of her rural population. The world-wide economic depression which began in 1930 also hit the Central and Provincial Governments very hard, and no provision could be made in the Budgets for bringing about an all-round improvement in the condition of the agriculturist and of the country-side. But these phases are now happily at an end. Political exigencies led Lord Willingdon's Government to set apart a crore and odd of rupees for rural reconstruction. This grant has gone a long way in encouraging Governments of the provinces in formulating and attempting to carry out schemes of village improvement. With the coming of the Marquis of Linlithgow as Viceroy not merely has a valuable impetus been given to the activities of officials and non-officials having for their object the bettering of the life in the village, but fresh avenues of improving the condition of Indian agriculture have been explored. His Excellency is determined to see that this great nation-building work shall proceed without let or hindrance. In his own words India's agricultural motto must be "Full speed ahead."

As already stated, it is only in comparatively recent years that a concerted attempt has been made to raise the status of the Indian ryot, in other words, to strengthen the back-bone of India's economic structure. It is a common-place in Indian rural economy that her village organisation has broken asunder owing to the impact of Western civilization and needs complete overhauling. But the task of renovating and overhauling this decadent system is such a colossal one as may well frighten the reformer and damp his enthusiasm. Really the problem is so vast that it is extremely difficult to get together the men, money and organisation required to handle it. The difficulty is further aggravated by the fact that illiteracy and ignorance prevail in the villages which do not allow

any permanent change to be effected in the out-look of the villagers who soon relapse into their old un-organised state as soon as the benevolent outsider disappears from the field. As Mr. Moreland rightly pointed out long ago, no rural development will be real or permanent unless the villager himself approves of it and is willing to keep it working once it is initiated. Just as the soil has to be prepared by the gardener for planting his seeds, similarly the very psychology and the social and personal habits of the peasant must be changed by imparting to him education of a rural character. Unless the desire for better condition of life becomes spontaneous and innate, all talk about rural progress is futile. It is by no means an easy task for the Indian administrators to carry home to cultivators the improvements in agricultural methods arrived at as a result of experiments and researches carried on by expert departmental investigators. The vehicle of publicity through printing, which is a potent means of propaganda and education among the masses, is of little use to the agriculturist who cannot easily assimilate this form of enlightenment. At present, therefore, we will have to rely very largely on the spoken word, demonstration, and perhaps on the radio and the talkies.

The Royal Commission on Indian Agriculture proceeded on the sound principle that the basis of all agricultural progress is experiment. On its recommendation was established the Imperial Council of Agricultural Research having as its primary function the promotion and co-ordination of agricultural research throughout India. In a country where agriculture is the mainstay of the people the importance of agricultural research cannot be too highly emphasized. His Excellency the Viceroy struck the right note when he said: 'Surveying the whole field of agricultural movement I think it is true to say that at no time has the position of agricultural research presented a more healthy or promising appearance.' But it is a pity that agricultural research does not seem to have been conducted on as comprehensive a scale as it ought to have been. The Council has, so far, carried on research work for the betterment of rice, wheat, fruit, tobacco, ground-nuts, linseed, sugarcane, potatoes, castor-seed and fodder crops. The introduction of rust-resisting Pusa 12 variety of wheat by the agricultural departments has improved the quality of the grain, which, however, must be further raised and kept up to enable Indian wheat to obtain the same prices as Canadian and Australian wheat in the world markets. Steps have been taken to remove certain shortcomings in fruit-gardening such as the haphazard planting of orchards, the practice of thinning the crops, and

defective classification and packing of the produce. Experiments of a far-reaching character have been carried out in sugarcane cultivation.¹ Grants were made which enabled cane-testing and research stations to be opened throughout the main sugarcane belt of Northern India, *viz.*, at Jorhat in Assam, Dacca in Bengal, at Musherri (near Muzaffarpur) and at Patna in Bihar, at Muzaffarnagar in the United Provinces, and at Jullender and Lyallpur in the Punjab. A special grant for breeding work on thick canes was made to the Mysore Agricultural Department; and another grant to the Pusa Research Institute for the study of the mosaic disease and of other insect pests. As a result of researches carried out at these experimental stations it is now possible to test new seedling canes on a co-ordinated plan, to make growth studies, and to increase the out-turn. Oil-seeds offer a rich field for research and improvement by the application of hybridization process and careful selection of high-yielding short-duration varieties. Considerable progress has been achieved in this direction in the Madras and Bombay Presidencies.

From the above it would appear that attention has been concentrated only on the great export staples, and the somewhat less important dry crops comprised under millets have been relegated to comparative neglect. This is deplorable because the Commission had already warned the Government against such a pit-fall. Millets should have been given a greater amount of attention by the scientific researcher as they touch the lives of the poorest and largest number of people. In this direction piecemeal improvements have been effected in some provinces but their importance in national rehabilitation is almost insignificant. However, it is expected that the Viceroy's criticism² of the work of the Imperial Council of Agricultural Research may result in the strengthening of the research staff and the taking of a more intensive interest in dry cultivation by the Agricultural Departments.

Soil fertilisers and methods of soil management have also claimed the attention of the Imperial Council as well as of other eminent scientists. Their researches have definitely established that molasses, which up to this time had no practical utility in the agricultural field, not only adds nitrogen to the soil but also

¹ For a detailed description of these experiments the reader may refer to a paper on The Indian Sugar Industry read before the Royal Society of Arts on May 31, 1935 by B. C. Burt, expert Adviser, Imperial Council of Agricultural Research.

² *Vide* His address to the meeting of the Advisory Board of the Imperial Council of Agricultural Research held at Simla in the second week of July, 1936.

increases its humus contents, and thus increases the yield of crop. The value of leguminous crops, cow-dung and oil-cakes as manure is also being gradually appreciated. In this connection the investigations of the Fertilizers Committee constituted under the auspices of the Imperial Council of Agricultural Research are of great importance; and the United Provinces' experiment of State tube-wells is fraught with great possibilities of increasing the fertility of the soil. But in order to make the best use of an improved soil there must be healthy and strong bullocks and buffaloes to serve as draught animals. An adequate and healthy live-stock is of supreme importance to India where the cattle supply practically all the motive power for ploughing and lift irrigation and are the principal source of manure commonly used. But unfortunately the cattle are generally ill-fed owing to the shortage of fodder, especially from March to June when the fields are parched up and no grass is left. The problem of fodder supply has engaged the attention of various Agricultural Departments, and a number of schemes have been formulated to remedy the defects such as the unscientific storage of grass, absence of fodder cutters and stall-feeding, etc. Another obstacle to the development of agricultural technique is the appalling mortality among cattle owing to the prevalence of many diseases which make them lean and lank. Therefore a disease investigation officer has been appointed in every province and is linked with the Central Veterinary Institute; and plans for the improvement of cattle, sheep, goats and poultry are assisted by grants. The Imperial Council initiated pedigree herd registers in connection with improved milk breeds, and in conformity with its recommendations the Government of India undertook to provide a new institute of animal nutrition at Bareilly and a poultry research station at Izatnager. By his personal example in presenting bulls for the improvement of cattle the agriculturally-minded Viceroy has set a precedent which is now being widely followed throughout the length and breadth of the country. Special attention is now paid to cattle breeding. The reports from various cattle farms show clearly that by proper selection and breeding and by better care, early maturity and regularity in calving have been achieved. The cattle farms produce good pedigree stock, particularly the bulls for supplying the demand for premium bulls for the improvement of the cattle of the cultivator. But the difficulty is that only a limited number of farm-bred bulls can be made available. So in order to intensify the work of improvement of cattle we shall have to utilise the resources of Goshalas and Pinjrapoles which exist in large numbers in every province.

If some way could be found to induce these organisations, then the problem could be solved very quickly and with little expenditure.

Having made a brief survey of the principal improvements carried out in the agricultural technique, we shall now proceed to deal with other factors which have a close bearing on the development of Indian agriculture. The crux of rural progress centres round the problems of the prevention of sub-division and fragmentation of holdings. Where the peasants cultivate under-sized and uneconomic holdings, they can hardly make their ends meet and are in chronic debt. It is, therefore, necessary to remove this insurmountable barrier to scientific cultivation through the agency of Cooperative Consolidation Societies and by persuasive propaganda. Next comes the problem of the marketing of agricultural produce. At present the benefits derived from improved strains of seed and latest agricultural implements are reaped not by the cultivator, but by the middle-man who is in a position to dictate his terms in every transaction. It is only in an effectively organized market that the cultivator could hope to secure full value for his labours. In order to remove the evil inherent in the present marketing organization the Agricultural Commission and the Central Banking Enquiry Committee had recommended the appointment of expert marketing officers in all the provinces working under local Marketing Boards. Accordingly they were appointed, and the results of their patient work are awaited with anxiety. Remarkable work in this direction has been done in the Bombay Presidency and the Central Provinces through the agency of regulated markets and co-operative Sale Societies. Other provinces may well follow their example.

But the question arises how far is the Indian ryot benefited by the vast amount of material designed for his betterment. Agricultural research is not carried on for its own sake; it is the means to an end. The end kept in view is that the fruits of the research should be made available to cultivators and become part of their practice. Hence the extent to which research work becomes a part of the agricultural practice is the true measure of its success. But owing to ignorance the Indian cultivator is not in a position to profit by the labours of scientists and research scholars who work for his express benefit. Like his *confrère* in the Western countries he is not wont to take advantage of the latest innovations and discoveries in the realm of agriculture. To take an instance, the Pusa wheats, which are far superior to the indigenous varieties, have not, as yet, found much favour with

the Indian agriculturist³. He is content with the normal Indian brands. There is a consensus of opinion that the root cause of this state of affairs is mass illiteracy. It is imperative, therefore, that every possible organisation in India, whether official or non-official, should be mobilized to get the results of research—Central and Provincial—brought to the village by various means. Demonstration classes should be started within the cultivated area where the advantages of introducing a better variety of crop, a better implement, or a better system of cultivation may be explained to peasants who cultivate contiguous fields. Direct propaganda by means of lectures, shows and Exhibition trains may prove very useful. But the process of ‘ocular demonstration and spoken instruction’ is very costly, and the resources of the Government are after all limited. The State cannot be expected to approach the cultivators individually and spoon-feed them. Instead of persuading them to adopt improvements in agriculture by the expensive, though efficacious, method of the actual exhibition of the fruits of research, strenuous efforts should be made to level up the responsive intelligence of the common people through an intensive and vigorous campaign for the liquidation of illiteracy. Their mental horizon should be broadened so that they may be able to apply a rational mind to the problems confronting them and their world. An enlightened peasantry will be a national asset of supreme importance. In the absence of a comprehensive system of education most of the efforts of Government to help people in bettering their ways of living and supplementing their income will yield no gratifying results. It is essential, therefore, that in any scheme for the benefit of agriculturists due allowance must be made for an intensive education devised not only to sharpen their efficiency but also to train their character.

³ How greatly the illiteracy and ignorance of the peasant have hampered the onward march of Indian agriculture will be realized if the spread of the new varieties of Pusa wheat is compared with the Marquis (a cross between Canadian and Indian wheat) in Canada and the United States. In fifteen years the Pusa wheats covered about 2 million acres; but in the same period the area under Marquis exceeded 20 million acres. See Howard : ‘Indian Agriculture,’ p. 35.

MARKETING OF WHEAT IN CAWNPORE

BY

A. P. MATHUR, M.A. (Alld).

Cawnpore is one of the biggest wheat marts in the United Provinces. It imports large quantities of wheat both from the rural areas and distant '*mandies*.' It is difficult to determine exactly the total quantity of wheat imported, as the volume of business is enormous and those who handle it are numerous. Roughly speaking 2 to 3 lakhs of wheat-sacks are annually brought for sale in Cawnpore market.

Wheat continues to be imported all the year round. The quantity brought in the market at any particular time depends upon the availability of stock and the price ruling at that time. If the price has gone up, a larger part of the stock is forthcoming. The stock consists of the supply stored or cornered by big merchants and zamindars in the hope of price going high. Just after the harvesting they rush the produce to the market and glut it. The prices go down and in spite of that, large supplies continue to pour in. Thus during the short period of 3 months (March, April and May) a very large part of the cultivators' produce is sold at low prices. If marketing can be regulated according to the consumption of wheat the prices will tend to remain steady and the grower will be able to realize a better price for his produce.

The causes that force a cultivator to market his produce all at once are many and complex. The apprehension of the breaking of the monsoon hastens his work. All marketing must be finished before that time. Then there are no proper storage facilities in the village. They have no place in their houses where they can store their grain safely. The most important cause is that the great majority of the cultivators have no staying power. They cannot afford to wait for the monetary return of their produce. They want immediate cash as they are generally hard-pressed by their creditors for payment of loans etc.

It has been estimated that during the wheat season of about 3 months some 300 to 500 carts of wheat daily come in Cawnpore grain market. When the season is over the imports go down considerably. For the rest of the year the number of wheat carts coming to the market varies between 20 to 80 per day.

There is little export of wheat from Cawnpore market. All that is imported is sold more or less locally. The prices of wheat in Cawnpore grain market generally remain high and hence instead of exporting wheat it continues to attract large supplies from other grain markets. One of the chief reasons for higher prices is that local consumption of wheat is considerable. It is only on rare occasions when prices of wheat are greater in other places that some amount of wheat is sent out.

The only form of wheat export is flour, including Meda, Bran etc., by the flour milling factories. There are three flour mills in Cawnpore of which two are only working at present. These are the Ganges Flour Mill and Sri Ram Mahadeo Prasad Flour Mill, located on the other side of the E.I.R. Railway Station. Both these on an average import about 30,000 maunds of wheat per month. The supply is generally drawn from the wheat-growing districts of the United Provinces, namely, Gonda Etawah, Farrukhabad, Hardoi etc. Some amount of wheat is also imported from the Punjab when prices there are sufficiently low. The purchases from the Punjab by these mills vary between 10 to 20 per cent of the total import. About 5 to 10 per cent is also contributed by the local market. The mills purchase all the wheat themselves and sell it in the form of flour. The flour is separated into three forms, *viz.*, Meda, Ata and Bran in the proportion of 65, 25 and 10 per cent respectively. Except 30 to 40 per cent used for local consumption, the rest of the flour is sent out. The chief provinces for the export are Bihar, Bengal and Assam. The sale is affected mostly through travelling agents who are employed both on commission basis and fixed salaries.

On the purchases of wheat that a mill makes from outside *mandi* it has to pay as follows:—

	Rs. a. p.			
1. Arhat	0	8	0	per hundred rupees.
2. Dharmada	0	1	0	„ „ „
3. Labour for filling and sewing sacks	1	8	0	„ hundred sacks.
4. Price of sacks				
5. Cartage	0	0	3	„ sack.
6. Railway freight				

When the goods arrive at the siding of the mill an octroi duty of 0-0-6 per maund is charged besides charges for Railway siding (which these mills have) at 0-0-1 per maund. Expenses

are also incurred for carrying the sacks from the siding to the mill site. This work is generally done by paid labourers of the mill.

As regards export the mill supplies flour on the spot in sacks properly packed. All the charges are borne by the buyer. The spot rate of flour on the day the inquiry was made was Rs. 4-4-0 per maund.

Grain Market.

Arhatia. In the market proper the wheat trade passes through the hand of the Arhatias or Commission Agents who sometimes themselves are good purchasers, but more often than not act as go-between. The buyer and the seller are supposed to transact business through the medium of these commission agents although there is no obligation to do so. The Arhatias do not confine to any single commodity but deal in a number of them. For example, an Arhatia of Cawnpore deals in wheat, cotton, oilseeds etc. The Arhatias are of two kinds:—Kaccha and Pucca. A Kaccha Arhatia is an ordinary commission agent. He is an intermediary between the buyer and the seller. He seldom buys the sellers' goods at his own instance. It is the Pucca Arhatia who affects purchases either on his own account or on behalf of some outside concern. The Pucca Arhatia invests his own money and undertakes risks, while a Kaccha Arhatia remains contented with his commission only. There are about 300 Arhatias in Cawnpore market of which 100 Arhatias are Pucca, the rest are Kaccha. The principal Pucca Arhatias are:—

- (1) Ram Bharose Ram Swarup.
- (2) Manohar Dass Ram Prasad.
- (3) Ram Karan Jagannath Prasad.
- (4) Bhajan Lall Bhagwati Prasad.
- (5) Jaggannath Changa Mal.
- (6) Mathura Prasad Munna Lall.
- (7) Bhola Nath Ram Prasad.
- (8) Ram Dayal Mahadeo Prasad.

The shops of these Arhatias are mostly localized in *mohallas Niaganj* and *Collectorganj* which form the principal *mandi* of Cawnpore.

Beopari.

The seller in the market is generally the Beopari or the itinerant trader. The ordinary cultivator seldom markets his own produce. He feels a stranger to the methods and practices of marketing. He prefers to hand over the produce to the village Beopari at a slightly lower rate rather than that at which he can dispose of his produce personally. The Beopari goes from village to village to buy up the surpluses of the cultivators and finally takes them in bulk to the wholesale market. The Beopari is generally an experienced businessman and well understands the system of marketing.

He brings his produce in carts and often from quite long distances. He is received from a distance of mile or so by the agents of the Arhatias. The agents are the 'Taulas' or the weighmen whom the Arhatia keeps for weighing the Beoparis' goods. The Taulas greet the Beoparis and each one of them tries his best to secure them. But such persuasions have little effect on the Beopari. He goes by his own experience. A new cultivator or Beopari will go to that Arhatia's shop which is patronized by persons of his village. He will not be persuaded to go elsewhere unless of course the temptation offered by another Arhatia is irresistible. The Arhatias secure and maintain the custom of their clients by a number of ways. In some cases they advance them money on nominal rates of interest. In other cases they withhold a part of payment for the produce so that the Beopari may come to them again. Besides these, they bestow all their care on them. They treat them very hospitably, offering them Hukka, drink etc. There is a great competition among the Arhatias to secure Beoparis.

Besides Beoparis, foreign merchants (*i.e.*, merchants coming from outside the Cawnpore district) also sell their goods in Cawnpore market. They do so through the local Arhatia. When their sales are effected the price of the produce is sent to them after deducting the usual charges of marketing.

The buyers in the market are both the Arhatias themselves and the wholesale or the retail merchant. Generally the wholesale merchant and the retailer known as 'Pharias' and 'Chalanis' are the buyers of Beoparis' goods.

Marketing. The Beopari comes to the Arhatia's shop with his cart-load of wheat for disposal. The Arhatia takes out some amount of wheat out of the cart as sample to be displayed in the market. Early in the morning when the Beoparis' goods arrive in the market the Arhatias or their agents are seen sitting in a

row in the market with samples of the grain on the cloth before them. The buyer sees the quality of wheat of different Arhatias and sets the price. The settling of price is generally done by Dalals both openly and secretly. The latter method is adopted when the buyers are many and there is a competition between them. It is done by the Dalal under a piece of thick cloth known as 'Angaucha' and all terms are settled under it by means of finger manipulations. 'If a buyer wants to offer, say, Rs. 3-4-3, he pushes his hand underneath the piece of cloth and says loudly Rs. 2 and grasps one finger of the Dalal with an upward jerk. This is supposed to mean Rs. $2 + 1 =$ Rs. 3. Then he shouts annas and catches four fingers which means four annas. Then he shouts pies and grasps three fingers. Thus by secret manipulation of fingers each customer offers his rates not known to others. The offer of the highest bidder is communicated to the Arhatia who in his turn communicates with the Beoparis. If the Beopari agrees the rate is settled and the wheat is sold out. Sometimes the secret method is used to deceive the Beopari. The Dalal may like to favour his friend who is a buyer and give out his offer although a lower bid as the highest. But such cases are rare.

Weighment. When the terms are settled the wheat is weighed out by the 'Taula' of the Arhatia. The Taulas are appointed by the Arhatias on fixed wages for weighing purposes. There are two sets of weights used in the market. The one is known as 'Numbri' which is the standard weight (1 seer = Rs. 80) and the other is 'Gola ki Tol' and is equivalent to $41\frac{1}{4}$ seers for one maund of 'Numbri.' The Gola ki Tol is used for weighing all kinds of grain including Jao, Bajra, Chana etc. It often happens that when the Arhatia purchases goods from the Beopari he weighs by the heavier 'Taul,' viz., Gola ki Tol and disposes of the produce by the lower 'taul' known as the numbri. The difference in weighment constitutes his profit.

Marketing expenses. The Beopari who brings carts of wheat from rural areas has to incur a number of expenses. He gives first to the village *taula* the charges of weighing the cultivator's produce. The next item of expense is that of maintaining the bullocks and the bullock-cart which is used for transporting wheat from village to the city *mandi*. Usually the cart belongs to the owner and only the feeding charges may be included under the expenses of marketing. Before the Beopari reaches the *mandi* another expense is incurred, viz., the Octroi duty. In Cawnpore the Octroi on wheat sacks is levied at 0-0-6 per maund but for crat-load it is charged according to the number of bullocks used in drawing the cart. For a cart drawn by one bullock 0-4-0

are charged but for a cart drawn by two bullocks the rate will be 0-8-0. When the wheat is purchased and weighed the Beopari again becomes liable to the following charges and deductions:

(1) Weighing charges	One pice per rupee or 1/9 per Rs. 100.
(2) Dalali	5 seers per cart.
(3) Munimi	4 " " "
(4) Jamadarin (a woman who holds the sack while the wheat is being poured into it after weighing)	3 " " "
(5) Palledar	2½ " " "
(6) Weighmen	1 " " "
(7) Charwahi	1½ " " "
(8) Chamarin	½ " " "
(9) Phanki	1½ ch. " maund.

Other deductions on the count of charity and social service are as follows:—

Mahabiri	¼ seer per cart.
Seva Samiti	¼ " " "
Gau Shala	¼ " " "
Anathale	¼ " " "
Ram Lila	one pice, " "
Sipahi	¼ seer " "
Miscellaneous	½ " " "

Thus in all from 30 to 35 seers of wheat is taken out of one cart which contains 20 to 30 maunds. Besides this money is also charged on a cart. In all the expenses of marketing come to 6 per cent roughly, 4 per cent in kind and 2 per cent in cash.

Payments. The Beopari generally receives cash payment when his wheat is weighed out. Even when the buyer does not pay all at once, the Arhatia pays from his own pocket and later on charges from the buyer. If the buyer delays payment by more than 4 days an interest of 10 to 12 annas per hundred rupees per month is charged.

Expenses of the Arhatia. The Arhatia gets the weighing charges of 1/9 per Rs. 100 from the Beopari. Out of this he makes the following payments:—

0-4-0 per 100 Rs. as Dalali, which is sometimes kept by the Arhatia himself.

0-2-0 per cart for Chabena to the driver of the cart.

Generally the profits of the Arhatia come to Rs. 1-3-0 to Rs. 1-6-0 per hundred rupees for the business transacted. Besides he gets some payment in kind from the Beopari, and not frequently makes a profit out of a difference in weighments.

The expenses of Beoparis have been detailed above. They generally bring wheat in open carts known as 'Khula Mal' but there are some outside firms which send their goods to the local Pucca Arhatia for disposal. They send in large quantities known as 'Thok' and in properly packed sacks. The goods so received is known as "Bora Bandi." The charges for selling Bora Bandi goods are as follows:—

Brokerage.	4 annas per 100.
Cartage from Railway Station to Godown.	0 2 6 per sack.
Dharmada	0 1 0 ,, Rs. 100.
Gau Shala	0 0 6 ,, ,, ,,
Insurance commission, if any	0 8 0 ,, 100 sack.
Palledari	2 8 0 ,, ,, ,,
Dandidar (Weighman)	½ ch. per maund.
Correspondence expenses.	Actual.
Interest on the money advance, if any.	0 10 0 to 0 12 0 per Rs. 100 per month.
Empty sacks returned per 100 sacks Railway freight.	0 4 0
Godown rent for keeping sacks	1 9 0 per 100 sacks per month.
Octroi	0 0 6 ,, maund.

Speculation. Speculation is not much indulged in the wheat market in Cawnpore. A few merchants indulge in it in foreign markets. The general type of speculation is Bandi ka Satta. It is made in terms of Khattis (where grain is stored) contracting with the speculators to take or deliver at a fixed future date so many Khattis at a particular rate. The rates of grain on which speculation and forward contracts are based depend upon, very largely, on the conditions prevailing in the big market centres at Calcutta, Bombay and Karachi and London. The rates travel by telephone and telegraphic messages received at short intervals. If the rate on the day contracted are high or low the difference in prices is paid. Suppose A contracted with B to supply him 5 Khattis of wheat on Rs. 4-8-0 per maund. Now if the rate on

the day of maturity be Rs. 4-12-0 per maund A will have to pay B a difference of 0-4-0 per maund for the amount of wheat he had contracted to supply. Actual deliveries seldom take place. Sometimes the risks are distributed over a number of persons engaged in the contract. The loser with one may be gainer with another. The speculation is sometimes scientific, *i.e.*, based on the knowledge of the nature of crop and the prices in the markets and in other cases it may be altogether haphazard. The latter is more risky and tends to fluctuate prices violently.

Suggestions. The study of marketing of wheat in Cawnpore reveals the difficulties which a cultivator has to face in marketing his produce. He seldom comes to the market personally for the disposal of commodities. This is due to the fact that he does not understand the complex methods and practices of marketing. The weights and measures confuse him and the Arhatias and Dalals with their exactions and deductions unnerve him. Even when he comes to the market he has to sell his commodities in an overfed market. He has neither staying power nor storage facilities. He is thus handicapped on both accounts and is not able to realize the full fruits of his labour. A large part of the profit is appropriated by the intermediaries. The prime necessity for improving the conditions of the producers is the proper regulation of the markets. The weights and measures should be standardized and the methods of marketing should be simplified to the extent that they may be intelligible to even a rustic seller. The cultivator should further be given a full scope to sell his produce. His activities should not be restricted by Arhatias and Dalals.

The other factor which is no less important is the matter of finance for marketing and the creation of storage facilities. Under the existing conditions the cultivator cannot withhold his produce and has to sell it at low prices in the glutted market. Just after harvesting the cultivator is actually goaded for the payment of dues by his creditors. If he could get money on this occasion he could hold on his produce for some time and then watch the movement of prices. It is therefore necessary that some agency should come to his help. The Co-operative Sales Society will meet the want. It will both rescue him from the hands of the intermediaries and enable him to realize the full profit of his hard labour.

INDIAN ECONOMIC ASSOCIATION

The Twentieth Indian Economic Conference will be held at Agra under the auspices of the Agra University on the 31st December 1936, and the following days, under the presidentship of Dr. J. Matthai, D.Sc., Director General of Commercial Intelligence and Statistics. Arrangements for the Conference are in full swing at Agra. A strong Reception Committee has been formed there with Prof. H. L. Puxley, Head of the Department of Economics, St. John's College, Agra, as Local Secretary. The subjects for discussion as already notified in the June 1936 issue of the Journal are as follows—

- (1) Indian Income Tax System.
- (2) Transport (Road and Rail Competition, Coastal and River Navigation).
- (3) Tariff Policy in India.
- (4) Measurement of National Income in India.
- (5) Recent exchange developments and the future of international trade, with particular reference to Indian trade and industries.

REVIEWS OF BOOKS

THE GENERAL THEORY OF EMPLOYMENT, INTEREST AND MONEY, by JOHN MAYNARD KEYNES. Published by Messrs. Macmillan & Co., London, 1936, pp. 403. Price 5s.

A reviewer's function is ordinarily threefold: to describe, to appreciate and to criticise. To describe Keynes's *General Theory* is perhaps the easiest task; to appreciate it fully in all its bearings, one must move on the same intellectual plane as Keynes; to criticise any part of it, one must indeed possess the boldness and the strength of an intellectual Hercules! For, indeed, this is one of the greatest of modern economic works, a fitting companion to Adam Smith's *Wealth of Nations*, Ricardo's *Principles of Political Economy*, Marshall's *Principles* and Pigou's *Economics of Welfare*—akin to these and yet dissimilar, inasmuch as its main theses, if they are finally accepted by economic logicians, bid fair to revolutionise the entire fabric of modern economic theory and practice and, withal, sweep away at one stroke much that is prosaic, artificial, vague and irrelevant in economic writing.

"This book," says Mr. Keynes in his preface, "is chiefly addressed to my fellow economists. I hope it will be intelligible to others. But its main purpose is to deal with difficult questions of theory, and only in the second place with the applications of this theory to practice. For, if orthodox economics is at fault, the error is to be found not in the superstructure, which has been erected with great care for logical consistency, but in a lack of clearness and of generality in the premisses. Thus I cannot achieve my object of persuading economists to re-examine critically certain of their basic assumptions except by a highly abstract argument and also by much controversy. I wish there could have been less of the latter." In the preliminary chapter again, "I have called this book the *General Theory of Employment, Interest and Money*, placing the emphasis on *general*. The object of such a title is to contrast the character of my arguments and conclusions with those of the *classical* theory of the subject I shall argue that the postulates of the classical theory are applicable to a special case only and not to the general case Moreover, the characteristics of the special case assumed by the classical theory happen to be those of the economic society in which we actually live, with the result that its teaching is misleading and disastrous . . ." It will be apparent from these quotations that here Keynes is in one of his iconoclastic moods and is up against the whole system of classical economics which has dominated economic thought and action for over a century. And, right from the beginning, we are in the thick of the fight, finding our writer hitting left and right, but we must add in fairness to him, never "below the belt"! The whole work is characterised by an extreme degree of fearlessness and intellectual honesty whose fervour does not spare even his own earlier productions. During the last ten years or so, Keynes has discarded many a slough of outworn economic shibboleths, and, in the midst of what he calls his "Cassandra-like croakings," has valiantly led us into path-breaking lines of thinking. The present work displays the entire fibre of

Keynes's fundamental thought which has been implicit in his recent pronouncements in the field of monetary and fiscal policies, and which could not have been threshed out in the necessarily perfunctory treatment which it received in text-books, treatises or popular articles. It is, therefore, an aside addressed to those fellow economists who, owing to their classical up-bringing have hitherto looked upon Keynes's questionings with impatience as pieces of mere derelict thinking.

Keynes's principal grouses against the classical tenets are as follows:

(i) He attacks, and I think, on the whole, most effectively attacks, the excessive preoccupation of the classical writers with the real economics of an economy which is essentially a monetary economy—a preoccupation which finds its fullest expression, e.g., in Professor Pigou's *Theory of Unemployment*, which as Keynes rightly points out, gets "out of the Classical Theory all that can be got out of it." This preoccupation has given a wrong direction to the classical discussions of the relationship between wages (money and real) and employment, and of topics such as interest, saving and prices.—it has made the entire approach topsy-turvy and distorted. (Cf. pp. 8ff., 19-20, 175ff., and 292ff.) (ii) Next, the classical tendency of looking upon the economic world as possessing a rubber-like elasticity and as constantly moving towards a pre-destined equilibrium, which would be realised only if we just let well alone, and the celebrated optimism of the *laissez-faire* doctrine that there is a natural tendency towards the optimum employment, come in for a well-merited rebuke that to indulge in these is to neglect "to take account of the drag on prosperity which can be exercised by an insufficiency of effective demand" (p. 33). (iii) The failure of the classical writers to effect a synthesis between the theory that prices are determined by supply and demand and the theory that they are determined by the quantity of money in circulation is the next grouse of Keynes. (See pp. 292ff.) Wicksell was probably the first to draw attention to this lack of synthesis. (Cf. Prof. Ohlin's brilliant introduction to Mr. Kahn's Translation of Wicksell's *Geldzins und Güterpreise*, under the title, *Interest and Prices*.) Keynes has carried the discussion much further and utilised what Prof. Ohlin calls "Wicksell's most fruitful innovation in bridging the gap between price theory and monetary theory," by bringing total demand in relation to total supply and deriving interesting conclusions regarding employment. This further elaboration is indeed fundamental to Keynes's treatment of the subject. Keynes proceeds thus: Let Z be the aggregate supply price of the output from employing N men, the relationship between Z and N being written $Z = \phi(N)$, which can be called the *Aggregate Supply Function*. Similarly, let D be the proceeds which entrepreneurs expect to receive from the employment of N men, the relationship between D and N being written $D = f(N)$, which can be called the *Aggregate Demand Function*. The volume of employment is given by the point of intersection between the aggregate demand function and the aggregate supply function. The classical theory, in assuming that the two functions always exactly coincided (Cf. the dictum "Supply creates its own Demand" or the dictum that "there cannot be any general over-production") and that there could, therefore, be no obstacle to full employment, errs on the side of over-abstraction of a "static" character. "The classical theorists," says Keynes, "resemble Euclidean geometers in a non-Euclidean world, who, discovering that in experience straight lines apparently parallel often

meet, rebuke the lines for not keeping straight—as the only remedy for the unfortunate collisions that are occurring.” Yet, this “axiom of parallels,” viz., of aggregate supply and aggregate demand, is itself a highly unreal abstraction. (iv) Accordingly, the classical propositions, (a) that the wage is equal to the marginal net product of labour, (b) that its utility is equal to the marginal disutility of the amount of employment, (c) that it is the “real” rather than the money wage which is relevant to the wage-bargain, and (d) that it is the lack of plasticity in wages that is responsible for unemployment,—all these have been thrown overboard on the ground that they rest upon artificial assumptions regarding the manner in which wage-bargains are settled.

This indeed is the negative achievement of Keynes that he has demolished some of the jerry-building of classical economics: as regards his positive contribution, much might be written. However, for reasons of space I refrain from giving a detailed survey; all that I propose to do here is to summarise in the barest form what I think will be regarded as the most outstanding contributions of this book to economic science.

(1) Firstly, then, it has evolved a connected system of thought regarding the Theory of the Monetary Economy to be substituted for the partial, halting, one-sided, nibbling effort of classical economists.

(2) Secondly, it has developed a highly original and interesting apparatus for the understanding of the interactions of the supply function, the demand function, employment, prices and interest. (The most important parts of this apparatus are those relating to the “employment multiplier,” Chapter 10.)

(3) Thirdly, it has made a fuller investigation than has been possible in the *Treatise* of the properties of interest and money, of the nature of capital, and of the concept of “marginal efficiency of capital.”

(4) Fourthly, it has thoroughly threshed out the “economics of expectation” in relation both to the short term as well as the long term of investment. Keynes’s views here are refreshingly original and represent a considerable advance on the work done in Sweden especially by Professors Myrdal and Lindahl, the neo-Wicksellians.

(5) And, fifthly, it has, consistently with the ideal of full employment (which here supplants the alternative ideals like stable employment, or maximum output, or stable value of money and so forth), developed a new trade-cycle thesis in favour of a “permanent quasi-boom,” maintained by monetary expansion up to the point of a full-employment equilibrium. In Keynes’s view, it is the cowardice of the banking system that nips prosperity in the bud: “The remedy for the boom is not a higher rate of interest but a lower rate of interest! For that may enable the so-called boom to last. The right remedy for the trade cycle is not to be found in abolishing booms and thus keeping us permanently in a semi-slump; but in abolishing slumps and thus keeping us permanently in a quasi-boom” (p. 322). He would encourage the “propensity to consume” continually by stimulating the rate of investment. “Thus it is to our best advantage to reduce the rate of interest to that point relatively to the schedule of the marginal efficiency of capital at which there is full employment” (p. 375).

In the *debris* which has remained after the demolition, one can discern the following odds and ends: The saving-investment parity thesis, which is the corner-stone of the neo-Wicksellian-cum-Austrian position, is now completely abandoned by Keynes as an instrument of policy; he has now defined saving and investment in such a way that there is always an equality between the two. Saving is, now, regarded by him as a mere reflex of the propensity to consume which has to be brought into alignment with a position of full employment through the rate of investment. Secondly, the natural-rate doctrine now gets the go-by, as being irrelevant to the ideal of full employment and as merely "preserving the *status quo*" (p. 243). The traditional quantity theory, in its crude as well as refined versions, as also the classical theory of interest as a price for waiting are replaced by more realistic and dynamic concepts of price-formations and liquidity-preferences. Finally, all those elements, generally, in the system of checks and balances, which are implicit in the classical doctrines of *laissez-faire* and economic harmonies, are discarded. It may be at first somewhat bewildering to the reader that Keynes, who advocated some of these ideas with passionate zeal as epoch-making discoveries in his *Treatise* should so lightly discard them; but progress in thought is made up of such stuff as this; and, I believe no one but an economic antiquarian will be sorry for the sudden reversal of ideas. Moreover, Keynes's position is not that the saving-investment disequilibrium would not be one way of looking at the picture, but as he makes clear, it would be only an "instantaneous picture" (p. vii) incapable of leading us to the "dynamic development."

Apart from these basic elements in the work, there are a number of *obiter dicta* in the usual Keynesian style, brilliant flashes of genius, scattered throughout the book. Take, for example, this one on the mathematical method in economics:

'The object of our analysis is, not to provide a machine, or method of blind manipulation, which will furnish an infallible answer, but to provide ourselves with an organised and orderly method of thinking out particular problems; and, after we have reached a provisional conclusion by isolating the complicating factors one by one, we then have to go back on ourselves and allow, as well as we can, for the probable interactions amongst the factors themselves. This is the nature of economic thinking. Any other way of applying our formal principles of thought (without, which, however, we shall be lost in the wood) will lead us into error. It is a great fault of symbolic, pseudo-mathematical methods of formalising a system of economic analysis, . . . that they expressly assume strict independence between the factors involved and lose all their cogency and authority if this hypothesis is disallowed; whereas, in ordinary discourse, where we are not blindly manipulating but know all the time what we are doing and what the words mean, we can keep "at the back of our heads" the necessary reserves and qualifications and the adjustments which we shall have to make later on, in a way in which we cannot keep complicated partial differentials "at the back" of several pages of algebra which assume that they all vanish. Too large a proportion of recent "mathematical" economics are mere concoctions, as imprecise as the initial assumptions they rest on, which allow the author to lose sight of the complexities and interdependencies of the real world in a maze of pretensions and unhelpful symbols' (pp. 297-8).

Or, take the brilliant satire on the self-complacent Treasury orthodoxy which would forbid the "waste" of public works—on pp. 128—130. Or, the descriptions of the characteristics of professional investment (pp. 155—7), and the reference to the asymmetry between Inflation and Deflation (pp. 290-1). All these and many more will arrest the attention of the careful reader and oasis-like provide respite to his eyes through his wanderings in the arid deserts of close argument and ruthless controversy! The notes on the Trade Cycle, Mercantilism and the Social Philosophy "towards which the General Theory might lead" will then be the Meccas and Medinas for the weary, though enlightened, traveller!

B. P. ADARKAR

SOME RELATIONS BETWEEN POLITICAL AND ECONOMIC THEORY, *by G. D. H. COLE.* Macmillan & Co., London, 1934, pp. 92. Price 4s. 6d.

Those who are familiar with the numerous works of Mr. Cole will notice in this book a change from the descriptive to the more abstractly theoretical treatment of the subject-matter. This change is, however, due largely to the very nature of the topics that come up for treatment. In spite of the fact, however, that most of the problems are thus highly theoretical the author's usual lucidity of treatment and felicity of expression make the book an easy reading.

It appears to the reviewer that the title of the book does not give a fair indication of its contents. It deals more with the various political theories than with the true relationship between economic and political doctrines. This, however, is a criticism of the title and not of the treatment of problems.

Whatever the contents of the book may be . . . whether they incline more towards the political or towards the economic, . . . there are points in all the chapters that are highly significant to a student of economics. In the introduction to the book the most fundamental unity of the problems that confront a politician and an economist is clearly indicated in the words that there is hardly in any vital sense one group of problems which can be called political and another that can be called economic. In the world of reality there are only problems of life; it is the man's mind that views them either from the political or the economic point of view. Nor is it possible even in a purely theoretical study of economic principles to abstract ourselves from all considerations of a political nature. We may study our principles without ever recognising the existence of the State but nevertheless the validity of our generalisations depends on the assumption that the State is there to sustain the economic order postulated by our analysis.

The most fundamental economic laws may be true of all times but such laws are hardly useful or meaningful. Our laws that are of any importance are based on definite assumptions and are relative, among other things, to political conditions.

The four chapters following the introduction are devoted to the study of political doctrines—Absolutism, Hegelianism, Utilitarianism and

Marxism. Of these four, the economist is directly interested in Utilitarianism and Marxism. Absolutism or Hegelianism having never figured prominently in the philosophy of Economics. As a matter of fact, it is difficult to bring the principles of Economics into any sensible relationship with the doctrine of absolutism and the author of the book seems to be more than conscious of that fact. For this reason the attempt to find a relationship between Politics and Economics on this account meets with but a partial success. In the realm of politics, political rights of men have been supposed to emanate from their absolute rights, but there is nothing comparable to such a reasoning in the realm of economic doctrines. The author recognises this fact while he says that the conception of absolute right need not appear in economic theory. "Economic theory, however, does not escape the danger of Absolutism, into which it falls whenever it attempts to derive universally valid laws or tendencies from premises which depend upon a particular and not unchangeable set of economic relationships."

This relativity of economic doctrines is a highly valuable conception. But the parallelism between Politics and Economics exists only in so far as it is arguable that just as there are no absolute *rights* of man in politics, there are no universally valid *laws* in economics.

It is, however, when we come to Utilitarianism that the common basis on which political and economic theories rest, or have been supposed to do so, becomes at once evident. Since the time of Jeremy Bentham it has been believed by a majority of political theorists that the ultimate aim of all State activities consists in the *greatest happiness of the greatest number*. One might not agree with Bentham or Mill in all the details of their Utilitarian doctrine but it is hardly possible for one completely to turn down their theory and substitute another that may be psychologically and politically more acceptable. The same may be said of economic theory. In spite of the fact that psychologists have now discarded hedonism as supplying an explanation of the motive to human activity, the economists still stick to their calculus of pleasure and pain. It is still believed that our actions are always motivated by the desire to obtain pleasure.

Here then lies the true relationship between political and economic theories—both rest on the same fundamental doctrine and unfortunately one that has no psychological support.

In the conclusions as in the introduction to the book the plea for a greater degree of co-operation between the politicians and the economists appears again and again. The reviewer thinks that it cannot be over-emphasised that in practical life, as the author says, there cannot be a purely economic or a purely political problem. The political has its economic aspect and the economic its political aspect.

The book has been ably and well written and should prove stimulating to serious students of politics and economics, in spite of the fact that "it stops short at many points on the threshold of problems that call for much fuller discussion."

GOLD AND PRICES, by G. F. WARREN AND F. A. PEARSON, New York, John Wiley & Sons, 1935.

The work under review is an elaboration, with extensive revisions, of 'Prices,' an earlier work by the same authors. Its object, as the authors explain, is to contribute to the dissemination of the knowledge of the laws of prices. Some of the major shortcomings of our economic system, the authors feel, are due to the faulty functioning of our machinery of exchange. "If the exchange cog in our business machinery breaks, the thing to correct is that cog" (preface). With this aim in view the writers set out to examine the relation between gold and prices in great detail. The book is necessarily one meant for repeated reference rather than a single thesis completely worked out. It provides a large number of graphs and tables relating to various prices. These, no doubt, would repay careful study. It is impossible for a reviewer to go into all the details of the work. Only a few general observations can be offered; a few conclusions worth pondering over can be pointed out.

But, first of all, let us be clear as to what may be legitimately expected of any statistical study. The paucity of statistical information in our country leads us sometimes to imagine that all our problems could easily be solved if only we had more of statistical data. In America, on the other hand, statistical studies are a fashion. No one ever denies the great service that statistics can render to the economist and the statesman. But it is possible to be over-enthusiastic about them, to succumb to the temptation of talking in almost mystical terms about them. Statistics, no doubt, are a valuable data for the economist; they can suggest new hypotheses; they can throw doubt on currently accepted conclusions. But they cannot *prove* anything. They are no substitute for economic reasoning. Historical records such as statistical tables and graphs furnish are essentially different from the sets of data which the analytical economist assumes and needs to assume.

The work before us, therefore, can only indirectly throw light on the laws of prices. That, however, is a limitation inherent in the approach adopted. It does not take away from the merit of the work within this boundary line. There is valuable information here for the patient enquirer. Index numbers have been given for wholesale prices of several commodities and groups of commodities and also for the physical volume of production; charts setting out the relationship between gold stocks and prices in England, France and the United States are illuminating indeed. The conclusion drawn from these is that "for 75 years before the war, there was no trend in commodity prices either upward or downward as long as the gold supply kept pace with the total production of basic commodities" (p. 98). There has been some increase in the efficiency of gold as a basis for currency and credit but the general result mentioned above is well established (p. 137). Obviously, this is a point to be kept in view when considering the possibilities of the gold standard for the future.

Discussing the problem of the future, the authors have grave doubts about the wisdom of reverting to the gold standard; bimetallism entails difficulties in practical working which are quite well-known; symmetallism has advantages in so far as the currency would not then be dependent on

the availability of a single commodity, but "a still greater stability of the monetary unit would be attained if a number of commodities were treated in the same manner which Marshall proposed for gold and silver" (pp. 284-285). A compensated dollar along Fisherian lines is suggested as the right alternative. Such a standard, it is argued, would guarantee stability internally at any rate, and even stability in foreign exchange could be secured if other countries adopted the same plan and substantially the same basic commodity index (p. 287).

There are also several interesting observations on the time-lags between the movements of different prices and the difficulties involved in rebuilding the price-structure by reflation (pp. 196ff.). The effects of the various restriction schemes adopted in the U. S. A. are well brought out and the conclusion that they are futile and dangerous is one which will certainly be accepted by economists. A planned capitalism, as has been recently emphasised by several prominent economists, is a contradiction in terms.

A few remarks may be made in conclusion. The book is strongly Fisherian in outlook. It defines the stability of the price-level as the objective of monetary policy. But, after all that Prof. Hayek and the economists of the Austrian School have taught about the relation between the price-level of consumption goods and the price-level of producers' goods, after all that they have said about the necessity of maintaining an equilibrium of the whole structure of production, can we use the concept of "the price-level" with such supreme assurance? Have we really made up our minds whether we want to stabilise commodity prices or factor prices? It is a patent fact borne out by American experience that a stable price-level may conceal within it the features of a serious inflation. Apart from the difficulty of defining the concept of "neutral money" there are still issues connected with the rôle of money in the trade cycle which need to be settled before we can say how we want money to behave in the actual dynamic world. When we have made up our mind on this fundamental matter, the question of securing the right kind of technique for the attainment of the particular objective will be comparatively easy.

J. J. ANJARIA

"ECONOMICS IN PRACTICE"—Six Lectures on Current Issues, by PROF. A. C. PIGOU. Macmillan. 4s. 6d.

This is a delightful collection of lectures delivered by Prof. Pigou, four of them, at the London School of Economics. They deal with subjects of current economic interest in popular style. Students at our colleges, our politicians and even businessmen will find the lectures both interesting and profitable. Prof. Pigou has attempted, with remarkable success, to sweep off the cobwebs of ignorance, misunderstanding and prejudice that are found to cover vital public questions of economic import as they are discussed in the press and on the platform and has done this with a deft and a sure hand. Fallacies are exposed good-humouredly and correct economic principles are skilfully inculcated. In his first lecture, the Economist's Apologia, he drives home the urgent necessity of taking the knowledge of elementary economic principles to the doors of the ordinary citizen and utters a timely warning to economists against allowing themselves to be exploited by partisan politicians. The warning is addressed,

in particular, to young students of Economics with political and other ambitions who are apt to be tempted into the paths of unscientific propaganda by the lure of the limelight of publicity. Prof. Pigou says that for the student to yield to that temptation is an intellectual crime. It is "to sell his birthright in the household of truth for a mess of political pottage." His advice against fruitless controversies and his plea for the student's contact with the realities of life and the conduct of enquiry and research with a view to their practical utility, ought to make a wide appeal.

Prof. Pigou's examination of the ideas underlying schemes adopted with a view to counteract the prevailing slump, specially the economy campaigns, is penetrating and highly instructive. He has many interesting things to say with regard to "the case for municipal economising on capital expenditure as a weapon against slumps." In the lecture on the balance of trade, he discusses the devices that have been employed in Great Britain to maintain and raise the internal price-level. Inflation, deflation and reflation form the subject-matter of another lecture and the last of these has been discussed at some length from the standpoint of social betterment. The circumstances in which reflation is justified on economic grounds and is calculated to prove beneficial to the community, are clearly stated. In the lecture on State action and *laissez faire*, we have an illuminating exposition of a controversial subject, *viz.*, planning, state intervention and government control. The conclusion drawn from an examination of the different kinds of disharmony which arise in economic life and in which State action is invoked, is this: "The issue about which popular writers argue—the principle of *laissez faire* versus the principle of State action—is not an issue at all. There is no principle involved on either side. Each particular case must be considered on its merits in all the detail of its concrete circumstance. High-sounding generalisations on these matters are irrelevant fireworks. They may have a place in political perorations, but they have none in real life. Accumulation of evidence, the balancing of probabilities, judgment of men, by these alone practical problems in this region can be successfully attacked." In these times of restrictions of all kinds imposed by governments on production and exchange, Prof. Pigou's discussion of the economics of that world-wide phenomenon will be found extremely interesting. Space forbids us to indicate the lines of argument taken in this and other lectures, much less to point out the fine phrasing, the subtle humour and the pleasant wit which makes the whole book most enlivening. Both teachers and students will find in the lectures much to learn and profit by.

V. G. K.

THE INDIAN PEASANT AND HIS ENVIRONMENT by N. GANGULEE, published by HUMPHREY MILFORD, Oxford University Press, 1935, pp. XXVI, 230.

In the present volume some of the problems that confront the Indian countryside and its inhabitants are discussed. We are told that since 1910 the author had opportunities of being closely associated with Indian rural life and of studying its problems. "In 1926—28, the opportunity came to me as a member of the Royal Commission on Indian Agriculture to see in every province in British India the work of the administrative organisations concerned with the welfare and prosperity of the rural population."

In the course of his tours the author could find time to pay a number of visits to the villages and to inspect certain rural welfare centres run by non-official agencies. The extracts from his journal kept during this period and some selected letters written to friends over a series of years form the present volume. For the convenience of the readers the author has classified the extracts and letters subject-wise under five main heads, each head being allotted a separate chapter.

In these five chapters Dr. Gangulee touches almost on all important aspects of rural life in India. His descriptions are often vivid and arresting and there is always an underlying current of genuine sympathy with and an almost intuitive insight into the real difficulties of the people in rural India. The methods of reconstruction suggested by him are generally not idealistic but take full account of the means and resources of the cultivator. We commend this volume to the students of rural economy in India.

B. G. B.

THE PROBLEM OF RURAL INDEBTEDNESS, *by* DR. B. V. NARAYANSWAMY NAIDU AND V. VENKATARAMAN. Published evidently by the authors themselves.

This small brochure of 23 pages gives us an idea of the problem of rural indebtedness as understood by the authors "after a careful investigation of conditions in two villages in the Chidambaram Taluk." The manner in which the investigation was conducted can be discerned from the questionnaire which is given as appendix to the brochure.

The authors have attempted a brief analysis of the existing conditions and have also put forward some concrete suggestions in the last Chapter for improving the existing state of things. Their ideas about the present conditions are largely based on an intensive study of fifty family budgets in the two villages investigated by them and as such have a touch of reality about them, while their suggestions for remedying the existing defects are based upon a close study of recent agricultural legislation in foreign countries. And it is here that the trouble lies. We in this country are too prone to copy things from abroad taking for granted that what has proved effective elsewhere must prove so in our country as well. We are afraid the authors also have not been able to keep themselves free from this danger always. Barring this little defect, the work shows great deal of merit and is undoubtedly the result of serious study and investigation.

B. G. B.

THE BOARD OF ECONOMIC INQUIRY PUNJAB, Publications Nos. 29, 44 and 45.

Publication No. 29 deals with "Rates of Food Consumption by 71 Families of Tenants-Cultivators in the Khanewal Tahsil, Multan District." This inquiry was conducted by Sardari Lal, B.A. This particular investigation is of a different nature from the more general village surveys conducted

by the Board; its special object being to ascertain the normal consumption, in a prosperous village, of the various articles of food, and particularly of wheat by the various classes of the population. The area chosen was a farm belonging to the British Cotton Growing Association and situated in one of the canal colonies of the Punjab, an area with a generally prosperous population, and where facilities existed for checking the facts elicited.

The food consumption values of a total of 71 families comprising 544 members, including infants and labourers, were examined in detail, and compared with the records of wheat consumption as deduced from farm records. We are told that the various classes do not differ appreciably in their meal times. Three meals per day are usually taken, substantial ones in the morning and evening, and a light one in the afternoon. Sugar is more largely consumed in the hot than in the cold season.

The pamphlet is full of interesting details and well pays a careful reading of it.

No. 44. This publication gives Family Budgets, 1933-34 of six Tenants-Cultivators in the Lyallpur District. The investigation was conducted by Sirdars Kartar Singh and Ajaib Singh. The present study is the second publication of the series started in 1932-33, when four families were investigated. In this investigation the number has been raised to six. The lines of presentation followed are the same as in the last publication, except that the period of study has been made coincident with the "Farm Accounts in the Punjab." This change is very salutary as it would facilitate comparison between the two accounts. This again is a very instructive publication and the Punjab Board of Economic Inquiry deserve our thanks for placing such authenticated facts about economic life in the Punjab at our disposal.

No. 45 is an Economic Survey of Bhambu Sandila, a village in the Muzaffargarh District of the Punjab. It was conducted by Mr. Abdur Rahim Khan, B.A.

This is the eighth report in the series of the Punjab village surveys and is full of interesting details about village economic life in the sandy parts of the Punjab. Though the district is sandy, we are told that the Muzaffargarh peasant does not know famine because, however insecure the harvests may be, there is usually something to eat; sixty per cent of the sown area is under inundation canals which cannot fail altogether. He also has wells to fall back upon and these usually mature his wheat, the most important crop of the District.

The village of Bhambu Sandila is in many ways typical of the tract. It is an estate of 1362 acres with a wholly Muslim population. The major tribe is Jat. The only Hindus connected with the village are six shop-keepers who, however, reside outside. Hindus control more than half the village area by mortgages and their influence as traders and money-lenders is considerable.

The report is a comparative analysis of the village life and is full of interesting facts which every student of rural economic conditions must study.

B. G. B.

RURAL SELF-GOVERNMENT IN BENGAL, by NARESH CHANDRA ROY. Published by the University of Calcutta, 1936, pp. XII, 202.

The book under review is the thesis of Mr. Roy for the Degree of Doctor of Philosophy in the University of Calcutta. It is divided into fourteen Chapters. We have no idea as to the degree of investigation and research required by the Calcutta University for the Ph.D. Degree but evidently as the thesis was approved by the University for that Degree we can have some idea of the standard that a candidate for the Ph.D. is expected to attain.

In the Introduction the author has traced the evolution of rural Self-Government in Bengal under the British rule. According to him "Local institutions did not exist in any form in Bengal prior to their establishment by legislative enactments in the later 19th century. In Moghul times it is doubtful if even in the villages of this province there was any organised local body Bengal was too much under the influence and control of the local Zemindars to keep up any independent village organization. A village had as a rule a headman known as the Mondol who was responsible to a large degree to the Zemindar for the supply of local information, the collection of rent and the maintenance of order as it was understood in those days."

We must confess that this is a rather sweeping statement which Dr. Roy would have never made if he had spent some time in reading the old Gazetteers which give an idea of the tribal organisation, at least in some parts of Bengal. Bengal during the Pre-British days was under the Zemindars and the Mandal was his instrument in carrying out his wishes in the village. But Dr. Roy did not evidently include this part of rural self-government as part of his studies. His emphasis is on the present.

The remaining thirteen chapters are devoted to the existing rural self-government organization in Bengal; and are based entirely on legislative enactments. They give a full idea of the constitution, functions and finance of the District Boards, the Local Boards and the Union Panchayat, and the Government control exercised over these bodies from within and without. Dr. Roy has given us an accurate and complete picture of these aspects of rural municipal administration in Bengal. The thesis, as it is, is a very handy *résumé* of what otherwise one will have to find from a mass of clauses and sub-clauses of the various Acts dealing with these bodies. As such we strongly recommend it to our readers. We are thankful to Dr. Roy for directing his time and thought to the study of this so far neglected subject.

B. G. B.

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MONEY MARKET IN MAHARASHTRA TWO CENTURIES AGO

BY

Prof. V. G. KALE.

It is now a well recognised and fully authenticated fact that a highly developed system of banking and accountancy has prevailed in India for several centuries. Banking practice of this indigenous type still holds sway throughout the country in spite of the progress of the modern methods in our cities and large towns. A good account of the indigenous system may be found in a few books which have been recently published and the reports of provincial and central banking enquiry committees have thrown much useful light on the subject. It will, nevertheless, add considerably to our knowledge of this side of India's economic life if detailed studies were carried out and searching investigations were made into the actual banking transactions of leading Shroffs in different parts of the country during the last few centuries. These researches are calculated to contribute materially to the understanding of the economic history of our people in the near past. The material is still available and bankers' old books throw a flood of light on the prevailing state of trade, industry and social customs. The documentary evidence will moulder and vanish as years roll on and must be rescued, collected and utilised to yield important information to the student of economic, social and political history.

Papers bearing on Mahratta history of the seventeenth and the eighteenth century, which are to be found in the collection

of the *Bhârat Itihâsa Mandal* of Poona, have engaged my attention for a few years past and I have discovered in them references to facts of economic interest which are helpful in interpreting systems of land revenue, currency, trade and banking prevailing in by-gone times. Among these papers, I have recently come upon a valuable find in the account books of a Brahmin banking house in Poona, (Dikshit-Patwardhan), which conducted business on a large scale in Maharashtra. The documents consist of day books (*Roj Nama*), ledgers (*Khatavani*), name indexes (*Name Vahi*), balance sheets (*Adhavas*) and statements of accounts of branches and of individual clients (*Hishebs*). These books are a storehouse of information of social and economic import and throw interesting sidelights on the domestic and political life of the Mahratta people during the 18th and the early part of the 19th century. It appears that generally speaking, the Shroff's business has been specialised in India in certain communities and castes. But in the heyday of Mahratta rule, the priestly class of Brahmins took to the money market and the battle-field as easily as to religious rites. In the account books before me occur dozens of names of Brahmin bankers carrying on business in a large way. There are also bankers drawn from other castes and communities some of them hailing from the distant north. Their business connections are spread far and wide and their *hundies* circulate extensively in and outside the Deccan. Bombay, Surat, Benares, Aurangabad, Burhanpur frequently figure in the account books and it would be extremely interesting to study these inter-territorial transactions on the strength of original documents. A comparative view of the banking and commercial practices obtaining in different areas will undoubtedly be very valuable, though it is true that there is a good deal of uniformity in them. The *hundi* is a ubiquitous instrument of credit and is found in almost the same form everywhere. I have before me *hundies* actually used hundred and fifty years ago.

Only a bare outline of the Mahratta money market can be attempted here and the description will be based entirely on the original papers that are before me. It need hardly be pointed out that neither a paper currency nor securities such as are dealt in on the modern stock exchanges, existed in the olden days. There could, of course, be no joint stock banks and no central banking institution in the circumstances of the time. The currency and credit needs of the public and the State were, however, fully satisfied under the prevailing system. Banking houses were scattered throughout the whole country, and these

took deposits, made advances, gave loans, remitted funds and collected and disbursed the revenues of governments. The absence of safe and good roads enhanced the value of *hundies* which couriers carried between bankers and specie was transported on the backs of camels only in rare instances when this procedure became indispensable for balancing mutual indebtedness. A big banking house thus did duty for a clearing house and a network of such houses spread over the country, distributed the means of payment satisfactorily. The *hundi* currency abundantly supplemented metallic currency, the diversity of which, however, presented its own difficulties.

Gold coin had almost gone out of use as currency and *mohors* of various makes were sold and purchased merely as bullion. The gold *hon* which was extensively employed in Maharashtra in payments, as a measure of value and money of account in the 17th century, had ceased to function in that capacity and the rupee coin had established itself as the only metallic currency in universal use. Every prince had his own rupee and the Mahratta government having its own mints, had also licensed a number of them for the coinage of rupees and copper coins (see Ranade's paper on the subject in his *Miscellaneous Writings*). Money-changing became an important part of the business of bankers and the discount on various kinds of rupees differed from time to time and place to place. This item of *batta* is an important item in the profit and loss accounts. Over a dozen types of rupees, e.g. Arkat ganjikot, Hali shikka, Bombay, Chandwadi, are mentioned and varying rates of discount for them are given. The state treasury received rupees at a particular rate (*Pote châl*), which had to be conformed with by all these having dealings with it. *Shivarai*, the copper pice commemorating the name of the founder of the Mahratta empire, was made up of three *rukkas* and both these are constantly recorded. The *Takka* was a money of account and, on an average, four of these went to the rupee. Copper coins, as a whole, were called *Khurdâ*. Silver half and quarter rupees were likewise in use. Bags containing a thousand rupee coins (*Toda*) and sometimes five hundred also were kept ready for payment.

The *hundi* performed the function of the modern cheque and the transfer of the funds of the clients of the banker was made by book entries. Payment of cash is made to a client or his account is credited according to the order (*Chitthee*) to another client and the latter method economises the use of cash. The firm of Dikshit-Patwardhan whose account books I have

carefully scrutinised, had a number of branches or *Pedhies* and profit and loss accounts for each of them are separately maintained and ultimately incorporated into the general and final balance sheet, which, in certain years, discloses working capital of 15 lakhs. Interesting details of the establishment and the receipts and expenses of the branch in Bombay are available. *Hundies* are daily received for credit of clients' accounts and encashments are purchased from and sold to merchants to facilitate their transactions, and the banker moves funds from centre to centre with great ease and convenience by this method. Several clients are very small people and their deposits are accepted and payments are made according to instructions. *Shahâ Jog*, *Name Jog* and *Dhani Jog hundies* which predominate in the business of indigenous bankers to-day, were equally common in Maharashtra two hundred years ago and they are almost similar in form. The amount of the *hundi* is written in words and half and double of the sum is similarly shown as now, to prevent tampering, and what is more, the number of lines contained in the *hundi* and the name of its writer are given at the close. A *Jabi hundi* is met with now and again and equally so is the one with *Bandi Mudat*, that is, a fixed date of payment. Usually nine days are allowed for payment after it has been presented and accepted (*Sakâr*), and entries in the account books specify the date of issue, the date of presentation and the date due. Interest at the rate of 6 per cent per annum is usually charged or allowed if payment is made before the due date or is delayed.

The normal rate of interest for merchants is 6 per cent per annum and as between bankers it is often less. For loans against the pledge of jewellery and the mortgage of goods it is 9 to 12 per cent. Advances are made to *Subhedars* and *Kamavisdars* of districts against the security of government revenue and these officers purchase *hundies* in their areas and remit them to Poona in payment of instalments due. The rulers, the *Peshwas*, were heavily in debt to bankers, and the indebtedness ran into lakhs of rupees. The rate of interest on the government loans was 12 per cent and repayment of loans was effected through orders (*Varats*) on the revenue officers, for *Rasad*. The war expenditure of the state was thus financed, in the main, by the bigger bankers, and these debt transactions influenced the money market to a considerable extent, the instruments of credit entering into this business forming an important part of the circulating media. Allowing for the difference in the silver content of the rupees in circulation, the

rate of exchange between two centres of trade varied according to the state of demand and supply. The rate of exchange between Poona and Benares (Shree Vârânashi) was usually 5 to 7 per cent. Remittances between these two places were numerous not only on account of many Mahratta people making the pilgrimage to Kashi but owing, it appears, to the fact that there was a large colony of Maharashtrians settled in that holy place. Throughout the whole of the 18th century, the Mahrattas had to carry on wars in the north, the south and the east and funds had to be constantly moved to different parts. In spite of the disturbed conditions and the lack of good communications and means of transport, however, *hundies* were exceedingly serviceable for remittance and trade was regularly financed through their means between distant places. Goods came to Poona from Bombay, the Nizam's territory and Mysore, and this commerce was financed without a hitch.

It is not possible here to do more than give a few typical instances to illustrate the above sketchy description of the Mahratta money market in the 18th century in order to indicate the nature of the business of bankers, their methods of dealing with their clients and of keeping accounts and the variety of ways in which they met the credit needs of the public and the state. Mahratta money market has all the features of the modern market except those referred to in the early part of this article. There is the letter of credit, the *Bhalavan Patra*, there is *Havala*, there are *hundi* brokers (Dalal) and agents (*अडत्या*) Adatya, and valuables are insured in transit. Accounts of clients are made up periodically and interest is frequently capitalised. Inter-banker accounts are made up generally every year and are mutually verified. Here are credit and debit entries in the *Roj Nama* for the Shaka year 1672 regarding the account of the Poona banker's client:—

Cr.	Dr.
Interest	
Rs. 105 from Kriparam Gwaldas up to Magha Shuddha 1, Shake 1671, debited to him by transfer.	Rs. 105 to Kriparam Gwaldas for interest up to Magha Shuddha 1. Shake 1671. Rate four annas per cent. p. m. credited to interest account. Balance verified by Achyuthbhat Athavale, Magh Shuddha 1, Shake 1671. Balance due, Rs. 3,415 at 4 per cent.

As I write, I have before me two statements of accounts pertaining to the Shaka year 1654-55 (A.D. 1732-33) submitted

for mutual verification to each other by the Poona banker, Sadashivabhat Patwardhan, and a brother banker, Babuji Naik Bhide of Aurangabad. Of course, the credits in the one statement become debits in the other. The total amount involved is in the neighbourhood of two lakhs of rupees and *hundies* for thousands of rupees pass through the accounts. The *Roj Nama* is written out for periods of ten or fifteen days and the balance is struck and the cash is shown in detail. Entries on the credit and the debit side contain full particulars of transactions and this appears to be a special feature of the prevalent practice. The following entries for the Shaka year 1700 are extracted to illustrate the banking practice as regards remittance of funds by means of *hundies*, through agents of bankers, the commission and exchange charges, etc.

Cr.

Rs. 5,261—on account of government demand for revenue instalment for Pargana Umarkhed, Antaji Narayan sent *hundies* to Rameshwar Jogeshwar at Aurangabad by messenger, Mahadeva Dhondaji, clerk, and were placed to the account of Mahadaji Parasharam Malpurkar. Acknowledgment of the *hundies* was handed over to Malpurkar at Poona.

Rs. 3,500 *Hundi* from Vasamat on Rajaram Lachiram, signed Phalgun Shuddha 7, Tuesday Time 9 days. Due date is Thursday Phalgun Vadya 2.

Rs. 1,891-8.—*Hundi* from Amadanagar on Aurangabad on Tikamdas Harkisandas. Issued on Phalgun Vadya 2, Thursday, time 10 days and due date 12, Sunday.

Rs. 5,391-8—out of which deduct the amount having been received at Poona: Rs. 121-8 for exchange at Rs. 2-4 p. c.; Rs. 6-12 for *Adat* commission at 2 as. p. c.; Rs. 2-8 for commission for acceptance (*sakrai*) and cashing.

Rs. 130-8—Balance debited to Parasharam Naik Malpurkar according to local market practice.

Dr.

Parasharam Naik Malpurkar: Our money due from Umarkhed was placed at the firm of your agent, Rameshwar Jogeshwar at Aurangabad. His acknowledgment for the same has been handed to you. The due dates of the money are: Rs. 3,500 on Phalgun Vadya 2, Thursday and Rs. 1,891 on Phalgun Vadya 12, Sunday. Rs. 130-8 to be deducted on account of exchange, commission and balance credited to account of Patwardhan by transfer. Details are on the debit side. Interest payable in accordance with the dates into the account. Personally verified.

In the above account, the sums receivable by the Poona banker from his client from Umarkhed, were paid into the account of the agent of Malpurkar, another Poona banker, at Aurangabad. The latter was advised about this and was given his agent's acknowledgement for the *hundies* received by him on behalf of the banker. The *hundies* were drawn on Aurangabad merchants and their amounts were received from Malpurkar at Poona. The writer of the daybook, therefore, debited Malpurkar's account with the sums *minus* exchange, the agent's commission and Malpurkar's commission for accepting and paying the *hundies*.

It was a common practice for bankers, in order to replenish their credit with their agents and other bankers on whom they would like to draw, to send them locally purchased *hundies* to be collected by the latter at their own centres. This practice was called sending *hundies* (*Lahane*) लहणे. Here is an example:—

Shake 1,672

Yado Mahadeva—loan taken from you—

Rs. 10,000—-an order note (*Chitthi*) from you on Dhondaji Naik Navale at Nasik, payable at sight. Date Vadya 10. Debited to Hari Dikshit by transfer.

Rs. 10,000—Hari Dikshit Patwardhan. A draft sent *Lahane* (लहणे) drawn on Dhondaji Naik Navale. Draft payable at sight written by Yado Mahadeva. Sent with courier, Abaji. Credited to account of Yado Mahadeva.

Our Poona banker wanted to replenish his credit with his agent, Hari Dikshit, at Nasik. He, therefore, purchases a sight *hundi* from a local banker or merchant, Yado Mahadeva, drawn on Dhondaji Naik at Nasik. As Hari Dikshit will cash the *hundi* at Nasik, he is debited with its amount and the drawer, Yado Mahadeva, is credited with the amount at the same time.

It is also a common practice for bankers when a *hundi* is drawn on them and is made payable at a centre other than their own, to forward the *hundi* to an agent at the place of the payee, with the necessary instructions, the agent being credited for the amount thus paid by him. This practice is called making the *hundi* (*Chalati* = चालती), that is, moved or transferred. There are other interesting features of the Mahratta money market and of banking practice prevalent in Maharashtra in the 18th century to be gleaned from old papers, into which I cannot go on the present occasion and I must leave that task to some future opportunity.

Below is another example of a *Chalati hundi*, i.e., a *hundi* redrawn by a banker on his agent at the place of the payee:—

Rs. 100—Naro Krishna Joshi: a *hundi* on you, money received from Khanda Dikshit Chitale and on account of Hari Dikshit Patwardhan. Time 5 days, payable to Lekaji Naik Parande. Debited by transfer to Hari Dikshit.

Rs. 100—Hari Dikshit Patwardhan. *Hundi Chalati* payable in Satara to Lekaji Naik Parande for Khandbhat Chitale on Naro Krishna Joshi. Credited to his account by transfer.

The Poona banker on whom the *hundi* for Rs. 100 was drawn (and it was payable not in Poona but in Satara), transforms it into a *hundi* drawn on his banker or agent at the latter place and the appropriate accounts are credited and debited.

Below is an instance of a merchant opening a credit with our Poona banker, the latter agreeing to honour *hundies* drawn on him, on his client's behalf.

Rs. 2,000 Pandurangbhat Gokhale, resident of Harnai, Prant Suvarnadurga. Interest at 8 annas per cent p.m. Agreement. Mukundshet on your behalf drew *hundies* from Narain Peth for Lingappa Naik payable *Shaha Bepari Jog* . . . The *hundies* were presented by Narappa and were paid in cash. We have also a letter from you besides the agreement referred to above.

How a *hundi* is negotiated and passes through several hands and how the employment of metallic money is economised by entries in the banker's book, is shown by the following example:—

Cr.

Ramaji Naik Datar—Rs. 500 paid by Babaji Ram Ambadekar. Debited to Ambaji Devaji.

Dr.

Ambaji Devaji—Paid to Narayandas Rajput in accordance with your letter. Paid to Babaji Ram Ambadekar to his order. Babaji ordered the amount to be paid to Ramaji Naik Datar. Credited to Ramaji Naik Datar.

THE RELATIONS BETWEEN HUMAN AND BOVINE POPULATION PRESSURE IN INDIA

BY

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Of all parts of India the Punjab and the North-Western Province show the largest consumption of animal products in the dietary.¹ But even in the Punjab the bulk of the food constituents and energy values is drawn from the vegetable products. Kartar Singh who collected a number of family budgets from Lyallpur in the Punjab gives the following table showing the relative importance of animal and vegetable products in the Punjab diets.²

	Proteins.	Fats.	Carbo-hydrates.	Energy.
1. Animal Products (Meat, milk and milk products.)	25'8	75'0	3'6	14'9
2. Vegetable Products (Grain, sugar, fruits and vege- tables.)	74'1	24'5	96'2	84'9
3. Miscellaneous ..	0'1	0'5	0'2	0'2

The lower percentages of both calories and proteins derived from animal products than those from vegetable products is due to the fact that a large consumption of the former is incompatible with the economical use of small holdings. That vegetable products give more of food values is shown by the following

¹ For the Punjab diets see Halliday : Diet in the Tropics in the Practitioner, Vol. CXIV, 1925.

² It appears that Kartar Singh's family budgets are rather exceptional, yielding as these dietaries do such a high food value as 4,414 calories, as compared with Lt. Col. C. A. Gill's figure only 2,847 for the Punjab labourers and 2,847 for the Punjab prisoners (see Note regarding Food and Diet by Gill, Royal Commission on Labour, Evidence Vol. 2, Part I).

figures giving the amount of various constituents in each class of food purchased for one rupee in Lyallpur.

	Proteins.	Fats.	Carbo-hydrates.	Energy.
Animal Products ..	0'70	1'01	0'68	13'633
Vegetable Products ..	1'10	0'18	10'02	43'037

To produce 1,000 calories in the form of milk requires two-half to four times as much land as to produce 1,000 calories in the form of wheat, rice and other cereals. Similarly fruits and vegetables, and particularly meat and beef give in general a much lower caloric return per acre than cereals and root vegetables such as potatoes. The following table, recently prepared by the U. S. Department of Agriculture, gives a comparison of the acreage needed by vegetable and animal food stuffs to produce a given number of calories:

Acreage needed to produce 1,400,000 calories

			NUMBER OF ACRES.		TOTAL.
			Crop.	Pasture.	
Potato	..	..	0'76	..	0'76
Corn meal	..	..	0'79	..	0'79
Wheat flour	..	..	1'45	..	1'45
Milk	..	..	2'35	1'60	3'95
Pork and lard	..	..	3'70	0'70	4'40
Beef	..	..	11'30	2'50	13'80

Due to excessive agricultural protection, several European countries, despite increasing population, have shown a considerable reduction in the calorimetric value of food and the preference of bread and potatoes to meat, fruit, vegetables and dairy produce. Thus the clearly marked evolution of consumption of food stuffs and better nutriment in the direction of variety marked for the last half century has been checked.³

The difference in caloric yield of various foods per unit of land is also reflected in their prices as for instance in the Punjab

³ World Economic Survey, 1934-35, p. 89; The Agricultural Crisis, Vol. I, p. 16.

table. The reason, therefore, why the eastern countries ordinarily do not and cannot favour animal products cannot therefore be exclusively religious. Vegetarianism is ultimately a result of a heavy population pressure.

What Buck has observed about the Chinese dietaries accordingly holds good also of the Indian: "Greater amounts of such animal foods as dairy products and eggs introduced as a new industry would diversify farming, but might be less economical of the land, except in a very limited way. While it remains to be proved that all the necessary essentials of a good diet can be obtained from the vegetable kingdom, still the evidence points to such a probability. If so, then the advantages to be had from the raising of animals depend largely upon their economical utilisation of bye-products and on their place in soil fertility maintenance." As a matter of fact McCollum and Simmonds have found that diets made up of a mixture of maize, alfalfa leaf and cooked peas subsequently dried have led to considerable growth and reproduction and must be regarded as satisfactory. Leafy vegetables (*saks*) which are largely consumed in India contain iron compounds which help towards an adequate oxidation of food-stuffs in the system. Observation shows that in the West meat is absent entirely from the menus of certain categories of workmen who are endowed with vigour and energy, whereas none have been found who abstain permanently from the use of fats or milk. In many agricultural districts of France, Italy and Spain the populations eat meat once a year, on the day of the patron saint.⁴ In the crowded countries of the East man can afford but small additions of meat, fish, poultry or egg to their diet, consisting in great measure of vegetable food including the leafy vegetables whose nutritive values the West has never learnt to appreciate.⁵

As population pressure increases there is a tendency everywhere not merely to use more carbohydrates than proteins since the former are cheaper but also to supersede all dairy products, animal foods and fruits and this often causes an unbalance which is particularly characteristic of the poorer sections and communities. It must be conceded that the Indian dietary involves a minimum land requirement about 97 per cent of the food energy consumed by the peasant family being derived from seeds, roots and vegetables. The following table gives a

⁴ Zimmerman and Framton: *Family and Society*: section on European Studies, p. 518.

⁵ McCollum and Simmonds: *The Newer Knowledge of Nutrition*, p. 170.

comparison of the sources of food energy for the peasantry in India, China and the United States:

Proportion of calories from different classes of food.⁶

			The United Provinces.	The Punjab.	China.	United States.
Seeds	..	..	93'6	75'1	89'8	38'7
Roots and vegetables	..		3'8	0'3	8'9	9'0
Animal (meat and fish)			0'7	14'9	1'0	39'2
Sugar	..	..	0'1	9'2	0'2	10'1
Fruits	..	..	0'1	0'3	3'2	3'0
Fats (vegetables)		..	1'7	0'2	1'8	..

On the basis of an optimum peasant's diet (providing for an adult at least 2,500 calories and 75 grains of protein) and the agricultural production per average holding in the United Provinces (from which deductions have been made for wastage, seed and cattle food), we have estimated that 10 acres can support 11 adults or about 16 units (comprising women and children also). This may be compared with Middleton's estimates for England and Germany.

*Relation between cultivated area and population
(Food-yielding capacity of 100 acres)*

India .. ..	..	..	100 to 110 persons.
Great Britain ..	..	45 .. 50 ..	..
Germany .. ..	..	70 .. 75 ..	..

The above will explain how such a rural density at least four times that in the agricultural tracts of Europe can be supported by agriculture in India. Much of India's advantage is due to double-cropping; while the superiority of German to British agriculture is due to much higher proportion of arable to grass land and a dietary in which the energy is obtained more economically, *i.e.*, from potatoes compared with meat and in meat from pork than from beef as in Great Britain. In India the advantage is due to double-cropping which is made

⁶ The U. P. results are derived from a recent survey in Gorakhpur by A. C. Bose. The Punjab figures are those of Kartar Singh, and the Chinese and American figures are given in Buck: Chinese Farm Economics, p. 364.

possible here as well as in China by the long growing season under conditions of summer rainfall as well as to the complete omission of animal raising and dependence on a vegetarian diet based on seeds, roots and leafy vegetables. Where hand-cultivation is seen at its best as in the case of rice, India's yields are high though much lower than in China and Japan but these are otherwise low as compared with crop yields in other countries.⁷

	RICE.		WHEAT.		CORN.	
	Acreage (millions).	Yield (bushels).	Acreage (millions).	Yield (bushels).	Acreage (millions).	Yield (bushels).
India ..	81'4	863	29'6	11'4	5'9	13'9
China ..	50'0	1,750	50'7	10'8	8'0	11'7
Japan ..	7'7	2,350	..	..	..	..
Ruma ..	..	..	39'1	10'1	5'3	17'4
Italy ..	..	..	11'5	17'2	3'8	24'9
United States.	'9	1,076	58'1	13'9	102'8	27'8

Thus in India as in China the output per acre is higher than in Europe but the output per worker is invariably lower. Indian crop yields can be at least doubled by the use of improved seeds and methods of tillage, fertilisers and by the utilisation of idle or semi-idle labour.

It will be interesting to examine now the relations between human and bovine population pressure. The gradual expansion of cultivated area and the almost complete conversion of pastures into tilled lands in the congested areas of India have resulted in the impoverishment of cattle. The heavier the population, the smaller is the holding in India. The inability to devote any but a mere fraction of the tiny holding to fodder crops which becomes a serious fodder famine two or three months before the monsoon in considerable parts of India aggravates the fodder shortage. The intensity of grazing is indicated in the United Provinces, for instance, by the fact that about a million animals graze over only 5,000 sq. miles in the forests of the U.P. In China and particularly in Japan the struggle for human subsistence has, as we have seen, crowded out all but draught animals and types such as pigs and chickens which forage for themselves. In Japan where about 5½ millions farming families cultivate roughly 15 million acres, a little under 3 acres per family, the number of

⁷ Land and Labour in China : Tawney.

cattle is exceedingly small, only 1,512,000; pigs, goat and sheep forming another million. In India the animal population is excessive and the uneconomical maintenance and multiplication of useless superfluous cattle due to religious and humanitarian considerations represent a problem which baffles all social and economic reformers.

Agriculture in India, as elsewhere, is economically impossible if the fodder of the working animals must be bought; and the farm must provide it, either in the shape of fodder crops, or of the bye-products of other crops, the straw and stalks (principally those of the *jowar*, *bajra*, *maize* and now of sugarcane and the straw of wheat and gram) which form the bulk of the fodder supply. The result is a close interrelation between the size of a holding, the class of crops grown, and the number and quality of the cattle employed, and it is this which accounts for the violent contrasts between the cattle in different tracts, from the costly and powerful animals of large holdings in the Punjab canal colonies, the upper Ganges Doab or North Gujrat to the miserable half-starved beasts in the rice tracts of Bihar, Bengal and Orissa. In the latter areas the cattle are much smaller, the holdings are smaller and the number of plough bullocks kept is larger. In wheat, cotton and millet zones of India the total number of cattle lie between 20 and 30 per hundred acres of net area sown with from 8 to 10 plough cattle whereas where the rice is the predominant crop between 3 or 4 times the number is expected. No doubt the following comparison of the number of cattle kept in India with those maintained in other countries indicates the possibility of reducing the number of working bullocks without lowering the standard of cultivation:

Number of cattle per hundred acres of sown area

Bengal	..	..	..	108
Bihar and Orissa	..	..	..	89
The United Provinces	..	..	..	88
Madras	..	..	..	66
India	..	..	..	67
Holland	..	..	..	38
Egypt	..	..	..	25
China	..	..	..	15
Japan	..	..	..	6

It is probable that the number of working bullocks could be safely reduced in the whole of India to one-third of the present population without affecting the standard of farming and rural transport. The following table shows the increase of Indian live-stock during the last 20 years:

<i>In millions</i>				
		1912-13.	1926-27.	1932-33.
Cattle and Buffaloes	..	152'8	187	200'5
Sheep and Goats	..	59'7	87'5	93'1
Horses, Ponies, Donkeys and Camels	..	3'8	4'9	5'2

The total population of domesticated animals, about 300 millions, is 75 millions less than the total human population of India. Such increase of the figures of cattle in India in the present fodder situation suggests a vicious circle. This was observed by Royal Commission of Agriculture. "The number of cattle within a district depends upon, and is regulated by, the demand for bullocks. The worse the conditions for rearing efficient cattle are, the greater the numbers kept tend to be. Cows become less fertile and their calves become undersized and do not satisfy cultivators, who, in the attempt to secure useful bullocks, breed more "and more cattle." This may be vividly illustrated by contrasting the conditions of fodder cultivation and cow-keeping in Meerut and Bulandshahr on the one hand and Gorakhpur and Basti districts on the other. The figures are those of the cattle census of 1930 in which it was estimated that 3 seers of milk per day from a cow and 4 seers from a cow buffalo represent yields which are economic minima.

Percentage to the net area cropped of:

	Average holding.	Percentage of average holding to economical holding.	Fodder Crops.	Wheat.	Rice.
Meerut ..	6'7	126	15'2	33'3	1'5
Bulandshahr	6'7	126	6'2	21'6	'3
Gorakhpur ..	4'3	107	1'1	20'5	40'6
Basti ..	4'3	107	1'9	24'1	48'4

Number per 100 acres of net area sown of :

		Cows giving 3 seers of milk or more.	Other Cows.	Cow buffaloes giving 4 seers of milk.	Other cow buffaloes.
Meerut	..	4'9	4'4	11'6	2'9
Bulandshahr	..	4'1	4'1	11'8	4'2
Gorakhpur	..	'2	17'7	'6	6'5
Basti	..	'08	19'5	'3	9'5

In the upper doab population pressure has evolved an efficient mixed farming, a moderate number of live-stock being maintained by fodder cropping. Fewer but more efficient cattle in the doab provide nutrition for the people, help materially to maintain soil fertility and increase its total outturn for the cultivators.⁸ In the eastern districts of the United Provinces on the other hand the more considerable proportion of cattle are useless and their multiplication implies a progressive deterioration of breed of cattle and economic position of the cultivators. In the United Provinces only about 6·8 per cent of cows yield 3 seers of milk per day and 26·5 per cent of the buffaloes yield more than 4 seers of milk. Out of such cows and buffaloes 75 per cent belong to Meerut and Agra divisions. As regards bulls, there is only one bull to 263 cows in the province while the Report of the Royal Commission on Agriculture mentions one bull to 56 cows as the conservative demand. Bulls are decreasing due to scarcity of fodder, disease and decline of the practice of dedication. In the Sub-Himalaya East, which includes Gorakhpur and Basti districts the number of bulls declined by 23 and 30 per cent between 1920—25 and 1925—30 on the figures of the 1920 Census, while in the Indo-Gangetic plain West, these increased by 22 and 16 per cent.⁹

It is one of the curious but striking paradoxes with which we are familiar in economic life in India that most of the good live-stock come from those parts where rainfall is low, water supply scarce and grass-land resources deficient. With the development of irrigation and expansion of the cultivated area, grazing areas are reduced everywhere and animals coming from the irrigated zones are much inferior in condition so far as their

⁸ Baljit Singh : Agricultural Progress in the Upper Doab, (unpublished manuscript).

⁹ U. P. Census Report, 1931, pp. 34-35.

performance is concerned, while they are more susceptible to parasitic infections and disease in general. In the tracts of heavy rainfall the phenomenal concentration of human population has led to the invasion of all grasslands and pastures by the plough and made fodder scarcer and scarcer, and probably both climatic and nutritional causes account for the deterioration of the local breeds.

Investigations clearly indicate that the existence of goitre, osteomalacia and other bone troubles, emaciation, birth of weak calves and pica are due to malnutrition. At Coonoor, animals living on imperfect diets have shown a greater tendency to infections of the respiratory and gastro-intestinal tract, and of stone-formation in the bladder. A great loss of body calcium is a predisposing factor in the greater incidence of certain diseases in heavy milking cows such as milk fever, tuberculosis and Johne's disease. The latter is now rapidly spreading in India. Other types of losses such as those resulting from irregular breeding and abortion of non-infectious origin, which are quite common in India, are also probably due to faulty dieting on a calcium and Vitamin A deficient ration.¹⁰ Prolonged mal-nutrition or famine leads to the suppression of oestrus. Thus in India in the drought years village cows do not bear calves, or bear them only in alternate years or even once in three years when the body reserves for minerals and other essentials are re-established.

As numbers of cattle increase or as the increase of tillage encroaches on the better grazing land, the pressure on the available supply of food leads to further poverty in the local breeds, and a stage is reached when oxen from other provinces or male buffaloes are brought in to assist cultivation as in Bengal. Weight for weight, a smaller animal consumes a much larger quantity of food than a bigger animal. Thus an animal weighing 500 lbs. is estimated to consume not half but about two-thirds of what an animal weighing 1,000 lbs. would consume. Thus real improvement can come only from raising the quality and limiting the quantity.

In many districts in Bengal the land is never ploughed until a good shower of rain has softened it. This explains also why cows are sometimes yoked to the plough and the miserable animals of the delta appear to do as much work as the finer beasts of the United Provinces. Every available inch, in Bengal,

¹⁰ K. C. Sen : *The Nutrition of Indian Cattle, Agriculture and Live-Stock in India*, March, 1935.

it might be said, of the land that is fit for cultivation and not required for human occupation is brought under the plough or planted with fruit-bearing trees. Public grazing grounds have almost disappeared. The absence of grazing facilities in some of the over-stocked districts is indicated by the following table deducted from the Cattle Census Report of Bengal of 1915.

District.			Number of animals per acre of grazing.	
Faridpur	69
Noakhali	55
Howrah	45
Bogra	40
Tippera and Rangpur	35
24-Parganas	30

Over and above this there are the shortage of grazing nutriment and deterioration of the grasses due to the uncontrolled and excessive use for decades. Of a total cropped area of about 31 million acres in 1915 only 0.1 million acres were under fodder crops. The staple fodder in Bengal was paddy straw from about 23 million acres. In a Government Report we read: "Even if the whole of this straw were made available as cattle food (it is well-known it is not) the supply would be insufficient for the barest requirements. It works out at about two seers per day, whereas the normal consumption should be about 5 seers."¹¹ Taking three districts in the order of their agricultural decline, *viz.*, Hooghly, Burdwan and Jessore, we find that between 1920 and 1930 the live-stock have yet increased phenomenally.

		Oxen.		Buffaloes.		Ploughs.	
		1920	1930	1920	1930	1920	1930
Hooghly	..	467,801	515,870	4,464	5,158	75,943	72,201
Burdwan	..	907,369	925,481	10,737	54,371	129,149	134,317
Jessore	..	828,830	1,063,659	16,155	11,803	177,028	177,021

Every pathway or cattletrack is narrowed down by the cultivator whose field is on either side, until barely room is left

¹¹ Nutrition of Cattle in Bengal, p. 2.

for two persons to pass each other on foot. The banks of tanks and the slopes of the embankments of public roads are the only grazing-grounds and the cattle subsist mainly on paddy straw, paddy-husks and the coarse grass which grows in tanks almost silted-up. Just after the rice crop has been cut they get enough to eat, but at other times of the year are half-starved. The lack of sufficient pasture, the absence of good fodder and the inability of the peasants to stall-feed their beasts have led in Bengal to the deterioration of cattle unparalleled in the rest of India. As cattle become smaller the cultivator increases their numbers to offset their inefficiency. On the other hand, as the cattle become smaller, the amount of food needed in proportion to their size increases. For it must not be supposed that the food required by 100 small cattle is the same as that needed by 50 double the size. All this accelerates the rate at which the conditions become worse for the breeding of good live-stock.

With a chronic fodder shortage, the offspring from the under-fed and under-bred animals become progressively poorer in each generation. The only redeemable feature recently found by the Punjab Government—if it can be considered so—is that these scrub cattle are almost immune to the ordinary live-stock diseases and to the periods of particular shortage of grass in drought years—tribes which would decimate the better-bred stock. Thus no improvement of the breed of cattle is possible unless the chronic fodder difficulty is solved, and its solution is rendered more and more difficult by the multiplication of scrub cattle. “If the scrub cattle are “bred up” (improved) by the introduction of good bulls of foreign breed, and the half-bred progeny have to compete for the present inadequate ration of fodder, they will fall an easy prey to disease and drought, because they will have lost some of their mothers’ hardiness and immunity.” Thus does the vicious circle extend, including in its expanding ambit cattle, crops and men.

Since fodder and pasturage are deficient large numbers of inefficient cattle which are preserved in a state of semi-starvation consume fodder that is sadly required for the better cattle. Overgrazing leads to the deterioration of the grasslands, erosion of their surface soil and the loss of nutriment value of the fodder which often acquires harmful quality on account of deficiency of certain mineral contents such as phosphorus and auximones. On the other hand, surface tillage due to the lower strength of the cattle and inadequate manuring lead to deterioration of arable land. Mal-nutrition, thus, pursues its harmful course in an ever-widening vicious circle; the cultivator is too often ill-

nourished and ravaged by disease which is commonly the result of his ill-nourishment. Obviously, the poorer the beast is fed, the poorer in food-value must be its produce. In most districts of the Punjab, the physicians generally agree that at least half the prevalent illnesses are due to mal-nutrition, caused by the dairy produce being poorer in essential body-building chemicals than it ought to be.¹² It must be remembered that the dairy animals are better fed in the Punjab than in most provinces of India. Throughout India the cultivator and his animals are alike ill-nourished while both toil wearily in a heartless effort to extract from the ill-nourished earth enough to keep them from starvation.¹³

The numbers of cattle have become so large and their efficiency has fallen so low in India as results of the process having advanced so far that the task of reducing the number of useless animals and of reversing the process of deterioration is now extremely difficult. In several ways social and religious sentiments have conspired to aggravate the difficulty. To kill a bullock or a cow is a deadly sin in Hinduism. The orthodox Hindu often objects to sell even in extreme circumstances because sale is usually to a butcher and leads to the slaughter house. Rather than selling the cattle to the cattle-dealer he sends them to a *gowshala* or lets them loose to die. There is a remarkable difference in this respect as between Hindu and Muslim communities with its reactions upon agriculture and animal husbandry. North of the Jhelum in the Punjab, Darling observes, cattle-breeding should be as easy as everywhere else it is difficult; for, except among the few Hindus there is not the least prejudice against the sale to the butcher of infirm or aged stock, and it is even rare for a bullock or cow to be kept from affection after it is past work. Nor does any one object to either castration or inoculation on religious grounds. Further, north of the Jhelum bulls are nearly always tied up and to the south, according to Hindu custom, they are allowed to roam, wherever they like. In the one case breeding can be controlled and in the other bulls wander about the fields consuming or damaging at least three times as much fodder as they need and cover as they please. The difference is of great importance in a country where cows are of all sorts and good bulls far too few.¹⁴ Unless the

¹² A Communique of the Punjab Government, August, 1936.

¹³ *Vide* also McCarrison's valuable note on nutrition appended to the Report of the Royal Commission on Agriculture.

¹⁴ Darling : *Wisdom and Waste in the Punjab Village*, p. 78.

Hindu sentiment is abjured altogether the Indian cultivators cannot take a practical view of animal keeping and will continue to preserve animals many of which are quite useless from birth to death, the number of these being the greatest among the small cultivators who can afford it least. Secondly the ancient right of dedicating a bull as an act of piety was once a public service, the animals in old times being carefully selected and of a good class. Now the animal dedicated is generally selected for its worthlessness and the sire has often become a vagrant pest. The open field system of the vast majority of the Indian villages makes it difficult to control the promiscuous mating of animals. Miserable half-starved males roam about in the countryside, perpetuating their species and further reducing their quality in the country.

An important remedy lies in the direction of evolving suitable types of dual purpose animals, the males being efficient as field workers and the females as milch animals. Such cattle are obtainable in India, many of the best breeds possessing these dual qualities. Such dual breeds will include buffaloes, the high butter content of whose milk makes them specially valuable for ghee production and the basis of prosperity of mixed farming in the Punjab, Guzerat and the United Provinces. Buffaloes, however, can compete on the whole favourably with ordinary cows and possibly with improved cows only in areas where coarse forage is abundant; otherwise high-grade cows of Indian milch breeds are already, after only a comparatively few years of selective breeding, able to hold their own, under suitable conditions of management, in regard to the over-all cost of milk and butter-fat production.¹⁵ The male cattle also is more useful as a draught animal than the male buffalo in greater part of India. Thus the evolution of the dual purpose cattle will render buffaloes largely superfluous as sources of milk and reduce their numbers in the country. The development of mechanical transport which will enable milk to be brought rapidly to the cities from the distant villages where cows can be kept economically will greatly aid dairy farming. Refrigerating action and pasteurisation will also contribute towards the economical maintenance of milch cows and buffaloes in the countryside and the solution of the chronic scarcity of milk in all Indian towns.

With the increase of population, a type of mixed farming, raising a moderate head of live-stock on each holding and growing fodder crops will increase the output and maintain the

¹⁵ See Review of Agricultural Operations of India 1919—31, p. 200.

fertility of the land, provided that the number of both human and animal dependents on the farm does not overstep proper limits. A balanced combination of dairy and mixed farming will thus have the obvious advantages of providing for the proper nutrition of the cultivator's family increasing the income from the land and at the same time minimising the risks of over-production of money-crops, and of soil depletion both of which are difficult to avoid. Belgium, Netherlands and Germany provide excellent examples of countries which are densely populated and highly industrialised and where cattle form a part of a system of intensive cultivation based on dairy farming. The proportion of dairy cows in the herds was as high as 52·7 in Belgium and 50·5 in the Netherlands in 1933. In Germany the large proportion of cows (56·8) in the herds is especially noteworthy and indicates the importance of the dairy industry. Milch cows predominate on the smaller holdings in Germany, where they are also frequently used for work, and as the size of the holding increases the relative number of dairy cows tends to diminish. In South Germany the custom of working the cows in the fields is common, but the practice does not obtain in the plains of the northern and eastern provinces, where attention is concentrated on dairying and the production of beef. The existing grassland is insufficient to provide adequate feed for the stock and recourse is had to import of fodder, development in the supplies of hay, clover, lucerne and sweet lupine and to the utilisation of cattle cake consisting largely of the residual product of Germany's important oil-seed and nut-crushing industry. In India the indigenous manufacture of vegetable oils might also increase the production of concentrated feed which could be an important factor in the rationalisation of dairy farming. Such a high proportion of milch cows in the total population is ample evidence of the success of animal husbandry. Similar figures about dairy farming are not available in India. A local investigation in Burdwan (Thana Ansgam) shows the number and kinds of cattle as follows:

	Village Aligram.	Village Ansgam.
Draught Bullocks	.. 144	150
Useless Bullocks	.. 4	2
.. Bulls ..	.. 3	2
.. Milch Cows	.. 43	40
	<hr/> 194	<hr/> 194

The percentages of milch cows in the total bovine population are only 22 and 20. The yield of milk is only 1 maund 1 seer.

Much more important than the improvement of breeding and dairy farming is the task of castration of all unfit and useless male stock. Not only scrub bulls but also uncastrated bullocks used for carts should be castrated to prevent damage to the breed. That a notable victory has been won over popular prejudice is shown by the fact that in the Punjab alone in 1932-33, 482,000 animals were castrated. Ringing of the bad cows so as to make covering impossible should also be introduced and popularised. This is done in the south-west of the Punjab. The Netherlands Government has recently embarked upon a policy of restricting cattle numbers and to this end a Cattle Crisis Act was passed in 1933. It was planned to reduce the number of cows by 200,000 by the end of 1934. The Agricultural Bureau, under the jurisdiction of the State, purchases and slaughters cows, and the beef is used for export or canned for special sale to the unemployed. The State has provided a grant, which is augmented by a slaughter tax on all cattle slaughtered for home consumption. At the same time production is controlled by specifying the number of calves to be retained in the herds.¹⁶

The expansion and improvement of fodder cropping and pasturage and introduction of silos, stall-feeding and controlled grazing in favour of superior stocks will also contribute to ease the present cattle feeding situation. In the zones of human concentration the development of dairy farming in association with intensive agriculture will supply milk, butter or *ghi* to the dietary, add to the agriculturist's income and prompt him to look after the female animals better. In large parts of India from the Punjab, Sind and Rajputana in the north to Mysore and parts of Madras in the south there are no doubt extensive grazing grounds where excellent work-cattle are produced under the ranch system at small cost. These should concentrate on the production of these both for local use and for export as long as the best grazing areas are not taken up for more intensive cultivation, which will inevitably lead to the deterioration of the size and quality of the stock; but in the rest of India population pressure will necessitate the development of an intensive system of mixed farming combined with dairying. This is, however, impossible to achieve until and unless the peasantry revise their present attitude towards the maintenance of superfluous, uneconomical stock.

¹⁶ Cattle and Beef Survey, Report of the Imperial Economic Committee, 1934.

PROFESSOR HAYEK'S NEUTRAL MONEY DOCTRINE

BY

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Introductory,—The main contents of Neutral Money,—The evolution of Dr. Hayek's concept of monetary neutrality,—The Hypotheses of Neutral Money,—The Relevancy of Barter,—Wicksell's Four Criteria of monetary management,—The futility of the Barter Hypothesis,—The various shades of meaning of the Saving-Investment parity,—“Individual” savings and “Social” savings,—A balanced ratio between Investment and Consumption,—Intertemporal Equilibrium,—Dr. Hayek's concept of the Social Production-Period,—The notion of “price margins,” and the relation between “price margins” and interest rates,—The Austrian Trade Cycle Theory,—“Voluntary” and “Forced” saving,—Dr. Hayek's parable of the Enormous Machine on a Desert Island,—Dr. Hayek's Monetary Methodology,—The Equilibrium Rate of Interest,—The “liquidation of maladjustments,”—“Constant Effective Quantity of Money,”—Conclusion.

I

Recently a writer has quite optimistically suggested that the clash between rival theories in the monetary field is, to a regrettable extent, somewhat of a Tweedledum-and-Tweedledee sham fight attributable to the sheer ineradicable pugnacity even of academical economists. Whether or not the batch of modern economists suffer from this particular type of mental aberration, one cannot agree with the view that the differences between the rival theories are of that celebrated category of distinctions. For example, to take only a few representative monetary writers, such as Keynes, Robertson, Hawtrey, Wicksell, Cassel, Mises, Hayek, Hobson and Fisher, there is no doubt that one is impressed by the numerous points of agreement between them, but on fundamental issues such as the diagnosis and prognosis and therapeutics of the trade cycle, the writers show very decided divergencies which cannot by any means be glossed over. This is particularly true of the battles royal which are being waged during the last few years between the representatives of the Cambridge and Austrian schools. The Wicksellian “natural

rate" hypothesis and the savings-investment balance concept, which are apparently common to the Mises-Hayek position and to the highly elaborate theoretical apparatus developed by Keynes in the *Treatise*,¹ conceal a considerable element of mental bifurcation and this not only in regard to their contents but in their application to policy also. These controversies, which have in recent years enlivened the pages of English economic journals, have been indeed very helpful in resolving many a doubt lurking in the mind of the student, but still at times confusion has been caused by misunderstandings heaped on further misunderstandings, all rather due to disparate premises and traditional habits of thinking.

II

In this article I propose to examine, both from the intrinsic angle of self-consistency as well as from the extraneous angle of conformity with facts, the group of notions, recently put forward by Professor Hayek and supported by leading Austrian writers such as Haberler and Mises, which, for convenience, I prefer to include under the generic term, Neutral Money. The Austrian influence on current English thought seems to be considerable both in its positive and negative reactions. In particular, the Deflationist school has assimilated—by strange and devious paths of logic—the Mises-Hayek dogma of Neutral Money with the greatest alacrity. Dr. Hayek, at any rate, cannot suffer, as other contemporary writers are said to have suffered, at the hands of English writers innocent of foreign languages. A large part of his work has been either written in or translated into English and the maturest results of his intellectual efforts are now available to English readers, thanks to the laudable co-operation of his followers and colleagues.

In what follows, I shall be concerned not only with the neutral-money concept in its narrow sense but also with other ancillary notions, such as those of the production-period, price margins, the barter hypothesis, the savings-investment balance, the "equilibrium" rate of interest, and the "liquidation of maladjustment,"—notions which have a happy knack of coming in useful when everything else seems to fail, like the spare parts of some strange jig-saw puzzle. Unfortunately Dr. Hayek has

¹ In this article, no account is taken of the rather unexpected position regarding the "natural rate" and "savings-investment balance" concepts taken up by Keynes in his new book, *The General Theory of Employment, Interest and Money*, as this has no bearing upon the Austrian position *per se*.

not developed all of these notions with the clarity and fulness necessary for their acceptance. Perhaps this very haphazard manner has helped him out of many a possible *impasse*, which would have exposed him to withering criticism. As it is, Dr. Hayek has shone best in a negative rôle, *i.e.*, as a critic, and his work is more significant in this than in the constructive sphere.² So far as his own contributions are concerned, wherever an opportunity has presented itself for any original or extensive work, he has preferred to remain vague and impenetrable. That is why he has not given us a single indication of any practical outlook, and why instead of offering concrete and objective criteria of monetary policy, he has contented himself with the mere metaphysics of Neutral Money. What is worse, in the last resort he has shown a tendency to profess agnosticism rather than struggle heroically with his self-imposed tasks, and he and Mises have taken up the peculiar position—although they both belong to the monetary school of trade-cycle theorists—that money is the cause of fluctuations, that banks can prevent their occurrence if they behave properly, but that nothing that they can do can help fluctuations (especially depressions) once they are under way.

In the abstract, we may all agree that the monetary apparatus should operate in such a way as to bring about the least possible disturbance in the smooth course of industrial development—*i.e.*, if at all the course of industrial development *were* smooth in the absence of such a disturbance. In this sense, Neutral Money looks quite an intriguing concept. That accounts for the rapid popularity which the concept has gained on the Continent. The notion, that money should be neutral towards the formation of prices, has figured in the writings of Wicksell³, Cassel⁴ and a number of German writers⁵ (though not always in the same sense) even before it made its appearance in the writings of the Austrians, but there is no doubt that we owe its elaboration largely to Dr. Hayek himself, who has made it his central maxim of policy.

² Cf. his excellent critique on the doctrines of Messrs. Foster and Catchings under the caption, "The Paradox of Saving" in the *Economica*, May 1931. Also his "Reflections on the Pure Theory of Mr. J. M. Keynes," in the same journal, 1931-32. Both his books, *Prices and Production* and *Monetary Theory and the Trade Cycle* contain long critical surveys of earlier literature.

³ *Geldzins und Güterpreise*, p. 93; also *Vorlesungen*, Vol. II, p. 220.

⁴ *Nature and Necessity of Interest*, p. 166.

⁵ Mentioned by Dr. Hayek himself, *Monetary Theory*, p. 168, footnotes.

In Dr. Hayek's mental evolution, "neutrality" of money, as a policy, has had several interesting phases of meaning, ranging from the do-nothing, valetudinarian attitude to an active interference with the monetary mechanism (e.g., in connection with velocity), which would appear, paradoxically, to be "belligerent" rather than neutral. In his article on Intertemporal Equilibrium in the *Weltwirtschaftliches Archiv*, (1928, p. 65), he seems to have supported the well-known proposition popularised by Schumpeter, Robertson and others, that fluctuations are a necessary incident of progress which would be retarded if the disturbances were removed. Then, following Mises, he shifted to the position that even if fluctuations were undesirable, they were practically unavoidable, so that banks could perhaps mitigate but not abolish the trade cycle. The method of control should, of course, be "the early application of a check to credit expansion,"⁶ and a policy of "overcaution even during times of general depression."⁷ There is yet another strand of thought noticeable, *viz.*, that money would be neutral, if it could behave as if it were non-existent.⁸ The principal theme of neutral money, however, is the belief held by Dr. Hayek that a "constant effective volume of money" would bring about a coincidence between the market rate and the natural rate of interest and would prevent the lengthening and shortening of the production-period, but that, while such maintenance of a constant effective supply of money would, at most, prevent fluctuations, there is no remedy once the equilibrium is disrupted and the industrial system gets out of control. In his view, once the equilibrium is disrupted all we can do is to wait till "the maladjustments have been liquidated," and the process of production assumes its normal length or shape.⁹

Underlying the whole concept of Neutral Money, there is to be found a great abhorrence for any active, exogenous policy—a philosophy of defeatism and nihilism, the mental configuration of a terrified Alice in Wonderland. Dr. Hayek has come to this strange phase, no doubt owing largely to his adherence to a peculiarly illegitimate extension of the social production-period

⁶ *Monetary Theory*, p. 192.

⁷ *Prices*, p. 108. Both Dr. Hayek and Professor Mises have suggestions to offer for the maintenance of equilibrium, but they have no panaceas once there is a departure from equilibrium and, as by some strange law of *Karma*, they would rather let the world suffer silently than help it out of its difficulties.

⁸ *Ibid*, p. 109.

⁹ *Ibid*, p. 87, *et passim*.

concept of Jevons and Böhm-Bawerk. Böhm-Bawerk's "concentric circle," which have become "production triangles" in Dr. Hayek's theory, giving rise to the notion of price margins and spreads, will be seen to be at the bottom of the trouble. Being very highly preoccupied with a pricing theory of the Austrian make, he cannot see the significance of an "average" value of money, in any sense whatever, and if he sees its significance and at times goes, unwittingly, to the length of adopting the "average" idea in his thesis, he is quick enough to deny its utility. Thanks to the influence of Wicksell and Mises, he has probably emerged from the view, which is held by others not less distinguished than he, that it is undesirable to eliminate the trade cycle, as it is but a necessary incident of progress,—that the industrial Juggernaut would jolt along the path of economic progress, perhaps crankily and unsteadily, but would surely be moving towards the goal of an ultimate prosperity (or crash, or collapse, who knows?). Now in the event of a depression Dr. Hayek would *post facto* blame it all upon wrong monetary policy—illegitimate credit expansion, reduction of the market rate below an imaginary "equilibrium" rate, non-observance of the golden mean of neutral money and so on. Supposing Dr. Hayek's propositions are correct, of course, the problem of maintaining equilibrium would almost be resolved; but if, on the contrary, management in the Hayekian way is devoid of results or if perchance it all goes wrong, what else has Dr. Hayek to offer than a philosophic surrender to the inevitable and the advice that we should wait till the system pulled itself up after the necessary exercises of liquidation and the straightening out of the "distorted" processes of production have been gone through?

III

It is necessary to examine the contents of the Neutral Money ideology, the numerous hypotheses for which have been either independently developed by the Austrians or borrowed by them from the Swedish economists, before we are in a position to consider the methodology of neutrality as proposed by Dr. Hayek. I am fully conscious that it would be difficult to do full justice to these issues within the compass of an article; moreover, Dr. Hayek's style is not exactly a model of lucidity and he has a habit of indulging in unnecessary obscurities and circumlocutions and almost endless repetitions. However, it may be comparatively an easier task to discuss Dr. Hayek's schemata

keeping these hypotheses constantly in the background than deal exhaustively with them. In this and the following seven sections, therefore, I shall be concerned with such things as the savings-investments balance, the process of production, the price structure and price margins, barter and static equilibrium, and forced saving. The last three sections I shall devote to methodology, discussing, *inter alia*, the "equilibrium" rate of interest, "constant effective supply of money," and "liquidation of maladjustments."

Since the earliest investigations in the field of monetary science, the consequences of rising and falling prices have had more than their due share of attention. On the one hand, the "real" rate doctrine very much exaggerated these consequences by reference to the debtor-creditor relationship;¹⁰ on the other hand, the perfectly valid notion of real transfers taking place as between rentiers and entrepreneurs and their social effects—which figures prominently in the text-books—led to a general disapproval of price fluctuations. Worst of all, statistical enquiries, which were never very much concerned with *cost* levels, went to show a definite positive correlation between industrial fluctuations and the behaviour of prices, at any rate over short periods. This was the stage of monetary science, in which the question, How best could money behave?, was answered with the *neutral* formula, that its *value* should neither rise nor fall. It was on this concept of neutrality of money that Wicksell raised his theoretical structure of the natural rate, while even Cassel, in spite of his general prejudice against Wicksell's monetary doctrines went so far as to speak of a "true" rate, which would keep prices steady.¹¹

When Wicksell first introduced his natural-rate concept, he was not thinking of short-period fluctuations, but of long-period changes in price levels such as occurred in 1873—96.¹² Latterly, however, Wicksell appears to have come to the view that the banks' failure to conform to natural-rate movements was responsible for trade cycles.¹³ Yet, whether it was the long-period or the short-period aspect that Wicksell had in view, it is abundantly clear that he could not satisfy his critics as regards

¹⁰ Cf. my note on "Fisher's Real Rate Doctrine," in the *Economic Journal*, March 1934.

¹¹ Cf. *Nature and Necessity of Interest*, pp. 166 ff.: *Theory of Social Economy*, p. 502.

¹² Brinley Thomas, *Economic Journal*, March 1935, p. 40, footnote.

¹³ *Vorlesungen*, Vol. II, p. 233.

the problem, which would arise in a dynamic state under conditions of growing productivity. As Dr. Brinley Thomas has shown in his article on Professor Davidson's monetary doctrines (*Economic Journal*, March 1935), Wicksell indulged in *ignoratio elenchi*. It was dissatisfaction with the prevailing interpretation of neutrality, as price stability, which led the Austrians to invent a new and ingenious thesis, in which not the *value* of money but its *quantity* would remain constant and neutral,—in which the aim would be not that prices should neither rise nor fall but that the quantity of money should neither increase nor diminish. It was, thus, partly as a foil or alternative to the prevailing stability concept that this new neutrality was devised. I am not sure, however, that this alternative is very much superior to the other or that it is the monetary ideal *par excellence*. From the practical viewpoint, there is at least objective definiteness on the side of price stability; what is there on that of neutrality but vacuous *ignota per ignotius*?

IV

Apart from dissatisfaction with the existing doctrine, there are other factors in the equation of neutrality which seem to have influenced Dr. Hayek. Of these factors, perhaps, the barter hypothesis is chronologically the first, in view of the fact that the antithesis between barter and money, in connection with our problem, was fairly early stated by Wieser as well as by Wicksell. Dr. Hayek himself thinks that

The problem of cyclical fluctuations can only be solved satisfactorily when a theory of money economy itself—still almost entirely lacking at present—has been evolved, comprising a detailed discussion of all those points in which it differs from the equilibrium analysis worked out on the assumption of a pure barter economy. (*Monetary Policy*, p. 131.)

Dr. Hayek has insisted on a detailed discussion of the barter hypothesis in all his writings, but as Mr. Sraffa quite rightly points out,¹⁴ he has nowhere worked out this particular analysis or carried it beyond a few bold and arbitrary assertions. I have a suspicion that Dr. Hayek is himself somewhat hazy about the true nature of barter. In the first place, he seems to confuse barter with static economy,¹⁵ although the two are as poles apart;

¹⁴ *Economic Journal*, March 1932, pp. 42 ff.

¹⁵ *Monetary Theory*, pp. 128-29 (e.g.).

for, evidently indirect exchange of the monetary kind is possible even under static conditions and, therefore, the notion of static economy cuts across the classification of money and barter. Secondly, Dr. Hayek also appears at places¹⁶ to regard barter and "real economics"—which appears when the monetary "veil" is removed—as one;—a conclusion which is strengthened when we consider the fact that he rather weakly admits Mr. Sraffa's brilliant but somewhat irrelevant analysis of barter,¹⁷ which is based on spot and forward dealings under the money economy itself or under a system of single-commodity standards, and which refers more to the "real economics" obtainable within the present monetary economy than to pure barter. Now, "real economics," though frequently confused with barter, is not identical with it; "real economics" is simply a *viewpoint*, which one may take up with reference both to barter as well as money, while barter is a particular *system* of dealings.¹⁸

Wicksell gave four criteria¹⁹ for the natural-rate management, *viz.*, (1) stabilisation of the price level, (2) equalisation of the "demand for loan capital and the stock of saved resources," (3) identity of the natural rate with the non-monetary barter rate, *i.e.*, "the rate which would arise if capital goods were lent *in natura*, and (4) its identity, again, with the marginal yield on capital instruments. These four tests, as I have tried to show elsewhere,²⁰ point to four different conclusions as to practical monetary management, while the barter hypothesis is the least helpful of them all. The Austrians were no doubt eclectic in adopting the hypothesis; however, it has not been properly scrutinised by them. It is not possible, for reasons of space, to deal with the question exhaustively in this place, but possible lines of objection might be indicated. In the first place, in pure barter, as distinct from a system of the single-commodity standard, although there may be a presumption that the voluntary decisions of savers would probably be interpreted more correctly and naturally than in money, there are two points which considerably vitiate the importance of this advantage, *viz.*, (a) that there is

¹⁶ *Ibid.*, p. 132.

¹⁷ *Loc. cit.*, p. 51. Mr. Sraffa is himself aware of this difficulty. Cf. also Dr. Hayek's *Reply*, *ibid.*, June 1932, p. 245. I am largely, in sympathy, however, with Mr. Sraffa's other methodological criticisms.

¹⁸ Among English economists, e.g., Pigou is the best exponent of "real economics."

¹⁹ *Vorlesungen*, Vol. II, pp. 216 ff, especially p. 220.

²⁰ Cf. my *Theory of Monetary Policy*, *passim*.

bound to be an overwhelming amount of friction preventing the "interpretation," and (b) that the simultaneous necessity of "multiple" coincidence, which is inherent in any system of pure barter, must, at any rate in a large community, lead to the appearance of two classes of goods, goods satisfying immediate wants and goods capable of being exchanged for others. If, to obviate the former difficulty, we assume, as (e.g.) Mr. Koopmans has²¹ done, that there is an elimination of all those elements of friction which would exist in the absence of money, the interesting question arises as to what would be the conclusion if a similar assumption were granted for money itself,—as to whether the absence of any such imaginable set of frictions would not lead to the elimination of the very problem of trade cycles itself! And, moreover, how can one grant the absence of those frictions which arise from the non-existence of money for an economy which is the very negation of money? The latter difficulty is such that ultimately, in the last analysis, it assimilates pure barter with a system based on a few commodity standards, which is only a step further from money. In such an economy, precisely the same difficulties would arise as under money, perhaps even in an aggravated form. In view of this, we might not go so far as to suggest (*pace* Schumpeter²² and Halm²³) that a uniform rate of interest could only arise in a money economy, but we can certainly not regard that the rate of interest, which would maintain equilibrium under barter—even granting that it were known,—is also the rate which would serve a like purpose under money; or that barter is a good model for its antithesis, Money. For, other conditions of barter-like automatism do not obtain here; and, moreover, all those non-monetary influences, such as innovations, incorrect forecasts, psychological errors, wars, good and bad harvests, etc., would still upset the nice calculations of monetary authorities. Lastly, it must also be pointed out that a clear case has not been established by Dr. Hayek that neutral money, in his own sense of constant effective quantity of money,

21 In his essay, "Zum Problem des 'Neutralen' Geldes," published in the *Beiträge zur Geldtheorie*, edited by Dr. Hayek.

22 *Theory of Economic Development*, p. 175, and p. 184. Schumpeter gives the reason that "the premiums on commodities are not permanent." But it may be possible to perpetuate the premiums by constant reproduction. It is only the characteristic of money, that its value is not particularised, which gives rise to any differences in this connection.

23 Mentioned by Dr. Hayek, *Monetary Theory*, p. 210.

would annihilate all the influences arising from indirect exchange and assimilate money with barter.²⁴

V

All this mythology of the absence of money being an excellent model for money etc., is evidently invented to support the case for a savings-investments parity (Hayekian) and the supposedly resultant notion of constant money. But it is clear from the foregoing that an independent justification will have to be provided for this method of approach. It must be emphasised here that there is considerable difference between the ideas of Wicksell, Keynes and Hayek in this connection. Wicksell defined his natural rate as "the rate of interest at which the demand for loan-capital and the stock of saved resources exactly coincide,"²⁵ but he does not appear to have either differentiated between the various elements in this "stock of saved resources" or clearly limited his enquiry to a definite period of time. Keynes's definition of savings and investments (*à la Treatise*) is decidedly more logical as well as clear-cut. He speaks of simply the *rates* of saving and investing and assumes that the Replacement Fund has already been fully absorbed. Dr. Hayek's view is that "in order that the supply and demand for real capital should be equalised, the banks must not lend more nor less than has been deposited with them," *plus*, perhaps, "such amounts in addition, which though saved, have not been invested," and as Mr. Sraffa has discovered, his "net savings" now consist of gross saving *minus* industrial losses. This from his *Prices and Production* and its German version. In his critical article on Keynes's theory, he further develops his notion of savings as comprising the Replacement Fund *plus* the new savings.²⁶

²⁴ For these reasons, I think, Professor Pigou's conclusion that "nothing of value can emerge from an investigation along these lines" seems quite sound. Cf. his *Theory of Unemployment*, p. 187. As Pigou very aptly puts it, "It is illegitimate to abstract money away and leave everything else the same, for the reason that, in the absence of money, everything else would necessarily not be the same. The abstraction proposed is of the same type as would be involved in thinking away oxygen from the earth and supposing that human life continues to exist. It is an improper application of the method of difference to imagine a cause to be removed but its effect, nevertheless, to remain." *Ibid.*, p. 212.

²⁵ *Vorlesungen*, p. 220.

²⁶ Hinted in a footnote in *Prices and Production*, p. 108. There, however, he includes all "the regular receipts of the turnover of the existing produces' goods," among which the Replacement Fund for capital is only a particular category. But such an inclusive definition would lead to the absurdity of regarding the income of productive factors as part of the current stock of savings.

Dr. Hayek, like many others, believes that authoritarian changes in actual circulation are capable of being wholly transmitted to the sphere of money flows corresponding to consumers' and producers' goods.²⁷ However, it would perhaps be useful to investigate this question a little more closely, along the lines of actual statistical quantities involved. It should be realised that there are four possible ways in which total individual savings may be utilised: (1) a part may be lent directly by the savers to investors, consumers or loss-financiers; (2) another may be directly invested by the savers themselves or used to finance their own losses; (3) another, and a large one, may be deposited with the banks; and (4) still another one may be neither deposited, nor invested, nor lent out for any purpose whatsoever, but just hoarded. On the other hand, the lending by banks themselves may be for three purposes: (a) investment, (b) consumption by prodigals, and (c) loss financing. Dr. Hayek, owing to his pet aversion of quantitative analysis, has forgotten to devote attention to these multifarious factors. He has not marked off the old savings from the new in the vague general categories of "quantity of money" and "circulation," which he uses so often in all his writings. Now, when he advises bankers to lend neither more nor less than what has been deposited with them, he ignores items (1), (2) and (4) enumerated above, and even the "saving clause," directing banks to lend out such amounts in addition as may have been saved but not invested, does not save, for there are other uses for individual savings than depositing and investing. Indeed, in his definition of "net savings" Dr. Hayek would deduct losses from gross savings; but if he is really aiming at net savings, he will have to go a step further and deduct loans for consumption as well. That, however, would land him into the region of *social* savings, and make his advice to bankers utterly meaningless; for deposits in the banks are *not* of the nature of social savings but only of that of individual savings and the bankers can hardly compute, much less adjust their dealings to, social *net* savings. That Dr. Hayek vaguely dreads this *impasse* is clear from his statement that even if the equilibrium rate could be ascertained "it would not be possible, in times of optimism, to prevent the growth of circulatory credit outside the banks."²⁸ Moreover, it should have been clear that the "quantity of money" bears no invariable relation to the flows

²⁷ Keynes has emphatically called attention to this confusion of Dr. Hayek in his *Reply* in the *Economica*, November 1931.

²⁸ *Prices*, p. 108.

of money directed to Dr. Hayek's consumers' and producers' goods. Of this more anon, however. The fact is that Dr. Hayek has very imperfectly visualised the quantitative aspect of his theories and, what is still more unfortunate, is supremely indifferent to them.²⁹

VI

However, it does not appear that Dr. Hayek is so much concerned with the savings-investments parity *per se* in any particular sense of the term. His greater preoccupation is a balanced ratio between the expenditure on consumers' goods and producers' goods. In his view, a stabilisation of incomes, even a prevention of crises,³⁰ "without causing misdirection of production could be effectual only if it were possible to inject the additional quantities of money required for that purpose, into the economic system in such a way that no change in the proportion between the demand for consumers' goods and the demand for producers' goods would be brought about."³¹ It may perhaps be granted, for argument's sake, that the "structure of production" and that of prices would remain very much in the same relative position as before, if proportional quantities of money are inserted into the respective channels of demands for consumers' and producers' goods. But the question arises, Is it possible, in these circumstances, for the savings-investments parity (which is quite *distinct* from the proportion between consumption and saving) to be maintained? It is evident that certain contractual prices, *viz.*, the prices of factors of production cannot rise at all, or to the same extent as other prices, so that a disparity will develop between costs and prices leading to increased investment not "justified" by the "real savings" situation. What would then become of the Subsistence Fund, of which both Mises and Hayek are so particularly enamoured,

²⁹ Keynes's Rates of saving and investment may, indeed, be open to the same objection of statistical indefiniteness; still those Rates are at least ideologically definite. Whether or not we speak of Rates, it should be clear that monetary management is concerned, in the final analysis, with total social savings and not with total individual savings. Keynes's Rates refer to net social savings and investments.

³⁰ *Economica*, May 1931, pp. 167-68.

³¹ *Preise und Produktion*, p. 100, quoted by Dr. Hayek, *Economic Journal*, June 1932, p. 245, where he congratulates himself that Mr. Sraffa has endorsed (?) this corollary of his theory. Also, *cf. Prices*, pp. 55-56, where he takes Messrs. Foster and Catchings to task for proposing the "financing of consumption," which would disrupt this relation.

when consumers with the increased funds in their hands exhaust it? And when both consumers and producers vie with one another (by dis-saving and investing respectively) in exhausting the "real capital" of Dr. Hayek, how will the roundabout processes of production, already started by the producers with increased funds in their hands, be at all sustained? There is no doubt that Dr. Hayek has made a great muddle of this question. Indeed it becomes a crucial test of his theory and, in my view, the theory stands or falls by the answer we give to the question, whether proportional doses of credit, simultaneously applied to both the demands, would or would not lead to disruption of the savings-investments parity (in the Hayekian sense). Intertemporal Equilibrium seems to suggest a negative answer, for the productive process will not be elongated and *relative* prices will remain as before. And yet a negative answer must fail to satisfy. Dr. Hayek goes only so far as to admit that a proportionate increase of credit in the two spheres would completely "frustrate any saving whatever," but that this would cause disaster *in the long run*. He appears, however, to have completely forgotten his earlier requirement of the equalisation of the supply of and demand for "real capital" in this case!

VII

So we now come to the central theme of Dr. Hayek's position. That is his distinctive contribution of Intertemporal Equilibrium. This concept turns on the equilibrium of prices of goods for present consumption and of goods for future consumption, and involves consideration of (a) the length of the production-period and its periodical elongation and abbreviation caused by the misbehaviour of the banking system, and (b) the theory of price spreads or margins. The former refers to the stages of production and the value-quantum of goods at each stage; the latter to the gradation of the prices at different stages of production. Dr. Hayek's schemata are based entirely on these notions derived from the Böhm-Bawerkian theory of capital. As the question of the relevancy of production-period is still *sub judice* and Dr. Hayek has not fully answered all the arguments advanced against the Austrian position by authorities like Professor Knight,³² I propose merely to touch upon it in a brief and cursory manner.

³² In an article on "Capitalistic Production, Time and the Rate of Return," in the *Essays in Honour of Gustav Cassel*; also "Capital, Time and the Interest Rate," in the *Economica*, August 1934, and "Professor Hayek and the Theory of Investment" in the *Economic Journal*, March 1935. Dr. Hayek's contribution

From Dr. Hayek's exposition it appears that his final conclusion is that "anything which will tend to lengthen this investment structure of current labour will lead to increases in the quantity of capital, and anything which tends to shorten it will lead to a reduction of capital."³³ If Dr. Hayek had made this the starting point of his enquiry, instead of his Mecca, and concerned himself solely with increases or diminutions in real capital, it would have saved him quite a lot of unnecessary speculation. But it was the peculiar idea of the relation between interest rates and price margins which led Dr. Hayek to the present "roundabout" ways of describing plain facts. For, he is somehow convinced that the gradation of production stages and that of prices have a bearing upon the problem of the "equilibrium" rate. Matters are considerably complicated by the fact that Dr. Hayek chalks out a path for himself and contrasts his "own essential concept—which is not of the length of the process for which the current supply of factors is being invested,"—with the "historical, backward-looking sense" in which Böhm-Bawerk interpreted his own concept.³⁴ This provides quite an ingenious escape from the difficulty of computation which has been such a stumbling-block to the Böhm-Bawerkians. However, we cannot forget that there is already the mass of goods pertaining to the earlier "shorter" production-period and for this the backward-looking process of computation is essential, before it can be ascertained whether with increased capital investment any production-period as such is being lengthened. In fact, Dr. Hayek is still far from any proof of the proposition that an increase in real capital necessarily involves the lengthening of the production-period in any sense of the term, whether backward-looking or forward-looking, whether that sense be the construction period, or service life, or, to use Dr. Hayek's own elastic terminology, the "investment structure of labour," or the "time structure of real capital." Nor can we say that measurability need not be insisted upon, if a *prima facie* case is made out for the notion that increased investment involves lengthening of the period. Dr. Hayek's "production

"On the Relationship between Investment and Output," shows the extent of disagreement between the two views. Professor Knight's hopeful quotation from Herbert Spencer that "only by varied reiteration can alien conceptions be forced upon unwilling minds" will for once fail to be confirmed! Up-to-date references of this controversy will be found in the *Quarterly Journal of Economics*, February 1936, pp. 199-200, footnotes.

³³ *Economic Journal*, June 1934, p. 231.

³⁴ *Ibid.*, p. 226.

triangles" and roundabout processes show quite definite implications of measurability.

There are, however, other and equally serious flaws in the argument of Dr. Hayek. In the first place, he has expressly excluded from consideration the effects upon industry and the production-period of new inventions and new methods of production, which either make old capital technically obsolete or valueless, or cause investment to be directed into such channels as do not necessarily involve a lengthening of any production-period or process, but on the contrary, might conceivably shorten it. Secondly, in spite of Böhm-Bawerk, he has not been able to clearly distinguish between the three aspects of capital, *viz.*, capital as factor of production, capital as goods in process and capital as finished product. The unfortunate result of this is that when he comes to discuss the demand, which arises for savings, he mixes up producers' goods with intermediate products in the most irresponsible manner. Thus, when the expenditures on consumers' goods relatively to those on producers' goods are supposed to change from 1:2 to 1:3, Dr. Hayek would require not only current investment but *past real capital* in the process of production also to be proportionately extended in the ratio of 2:3. One cannot imagine to what catastrophe this remorseless logic of Dr. Hayek would lead us, if this ratio were really adopted. Thirdly, there is nothing like logical symmetry in the concept, although both Hayek³⁵ and Mises³⁶ speak of a shortening as well as a lengthening of the production-period. It is clear the whole emphasis is on the lengthening aspect, as if the departure from equilibrium, which is Dr. Hayek's line of enquiry, can never come about by deflation.³⁷ In the Austrian way of thinking deflation is always a reaction engendered by previous inflation. The social production-period first lengthens out; uneconomical processes falsely encouraged by low rates of interest are started; these cannot later on be sustained owing to exhaustion of "real capital"; the longer processes have, therefore, to be abandoned and liquidation of these has to be awaited. Symmetry requires that the analysis relevant to deflation also be developed along identical lines, because this is not always necessarily a reaction against a previous inflation, but can often be an independent initiating cause. But most important of all, one

³⁵ *Prices*, *passim*.

³⁶ Cf. Mises, *Theory of Money and Credit*, p. 361.

³⁷ English experience during 1925-29 would be a good example of disequilibrium caused by deflation.

cannot understand why the liquidation is a condition precedent to revival. Why should it be so taboo for the monetary authorities to insert new credit of a compensating nature into the system, so as to support some of the perfectly justifiable processes which might be collapsing along with the bad "long" ones?

VIII

When we come to Dr. Hayek's construction of the price spreads or price margins we are confronted with a good deal of terminological mistiness. Take, *e.g.*, the term "relative prices." Different people have meant different things by this, *e.g.*, (1) *concrete individual* prices ruling in different markets, (2) different concrete price *groups* in the average sense, (3) *moving indices* for either of the foregoing, and (4) moving indices for a *general* price level. Dr. Hayek has a peculiar sense of his own. What he intends his "relative prices" to mean—and he expects the reader to surmise this—is the vertical concrete structure of individual prices expressed not in the form of indices but in £. s. d. Dr. Hayek's morbid attitude towards averages springs no doubt from this preoccupation. He finds fault with Keynes's preferences for output value in his *Economica* article, derides Wicksell for regarding "the problem as concerning explicitly the *average* change in the prices of goods, which from the theoretical standpoint is quite irrelevant,"³⁸ and even discards the *innere objektive Tauschwert* of Menger and Mises, (although at one place he, rather illegitimately I think, would assert that stability of the *innere Tauschwert* is "only another expression for neutrality of money."³⁹ As he has no averaging or weighting method available for his price margins, which are utterly abstract and unverifiable, he has no objective weapon to offer for monetary policy. Occasionally, no doubt, in spite of his average-phobia, following Mises, he would speak of the margins between prices of producers' goods and those of consumers' goods; but then he is dangerously near accepting the average idea.

The structure of prices corresponds to the structure of production stages. The function of the interest rate is correctly to represent the margins between prices at different stages. The margins are disturbed by shifts in the relative demand for goods at the various stages in the production process according as more or less credit is being inserted into them. Price margins are the

³⁸ *Monetary Theory*, pp. 111-12. His italics.

³⁹ *Monetary Theory*, p. 117, footnote.

difference between prices paid for the product of a particular stage *minus* the prices paid for the original means of production together with those paid for the intermediate product taken from the preceding stage, *i.e.*, between prices and costs, excluding interest. Equality of costs and prices at each stage is thus demanded as a condition of equilibrium. Interest thus simply becomes an item on the costs side of the equation. But the costs-prices equality is to operate at every stage and not in an average sense. Interest must satisfy each price margin and not any average relation between costs and prices. In the peculiar phraseology of Dr. Hayek, "In a state of equilibrium, these margins are entirely absorbed by interest."⁴⁰ He cannot speak, however, of an average price margin for obvious reasons, and has no clear-cut notion as to the relation between these price margins and the other will-o'-the-wisp, the "equilibrium" rate. Elsewhere he remarks, somewhat, in the Delphic style, "To investigate the relationship of these margins to the peculiar advantages of the roundabout methods of production would lead us too far into the problems of the general theory of interest."⁴¹ If Dr. Hayek had investigated this relationship, he would no doubt have discovered that his price margins were only the productivity aspect of interest and, as such, an all but exploded doctrine for the *management* of the interest-rate mechanism.

IX

We now turn to the strange, esoteric philosophy which Dr. Hayek and his associates have developed from these half-baked notions in the field of trade-cycle theory. This is largely of the *ipse dixit* variety, full of fanciful speculations and illogicalities in which *Konjunkturstatistik* has been thrown to the winds. The aversion of the Austrian school for statistical research as a preliminary to trade cycle theorisation may be excused if it were only confined to the objection that statistical enquiry cannot by itself be the *fons et origo* of theory, but when theories are stated without even a semblance of statistical and factual realism, it becomes necessary to protest. Then, as regards the material to be investigated, we may at once grant the proposition that there is ever "a tendency towards an equilibrium" present in the economic system, but it is impossible

⁴⁰ *Prices*, p. 68.

⁴¹ *Ibid.*, p. 81, *et seq.*

to grant a *fact* of equilibrium, implying full employment of resources which Dr. Hayek has made the starting point of his enquiry. If industrial fluctuations are understood to take place in regular cycles—which, I believe, is also Dr. Hayek's assumption,—it is clear that the industrial machine is perpetually in a dynamic disequilibrium and that we ought to study monetary problems in relation to such disequilibrium rather than try to simplify things by making a fictitious equilibrium our starting point. Thirdly, there appears to be a wide gulf between Dr. Hayek's and his critics' notions regarding the ultimate goal of monetary policy. Dr. Hayek is out to explain "fluctuations of production," and his aim appears to be "stabilised" production rather than either maximum production or maximum employment. This is clear from his absorbing interest in the structure of production and his insistence on a correct proportion of funds being spent on consumers' and producers' goods to maintain a balance between present and future production. Thus, the three factors of the lack of statistical realism, an incorrect and fictitious starting point and a still more incorrect monetary ideal have combined to make complete nonsense of Dr. Hayek's doctrines.

Dr. Hayek starts by contrasting the consequences of voluntary saving and artificial monetary expansion.⁴² The effects of the former are permanent and, therefore, "self-perpetuating," while those of the latter are temporary and remain only until the additional money becomes income. In the former case, voluntary saving leads to a fall of interest rates and increased saving activity causes a fall in the demand for and in the prices of consumers' goods; and increased investment (equal to savings) correspondingly a rise in the prices of producers' goods. This narrows the price margins in the first instance, but increased production of consumers' goods (the result of the new processes) through a fall in their prices exerts a further narrowing influence upon price margins which thus correspond with the low rate of interest and establish an equilibrium that may be said to be permanent. In the latter case, however, the increased demand for producers' goods will raise their prices but nothing has happened to consumption prices; price margins, therefore, will remain permanently distended and out of harmony with the interest rates. In this case, as is obvious, Dr. Hayek does not permit himself the assumption made in the other case, that

⁴² *Monetary Theory*, pp. 212 ff.

increased production of new consumers' goods coming on the market would cause a fall in consumption prices and that the narrowing price margins would find their parity with revertingly rising interest rates (which are a feature of the later stages of a boom),—both seeking a convergence towards equilibrium. If, Dr. Hayek had made the same assumption for both cases, as regards the subsequent glut of consumers' goods, it would have led him to two propositions, equally devastating to his theories: first, that there is a constant tendency among price margins and interest rates to come into alignment, and second, that this alignment would come about even prematurely before the depression had set in.

This account, therefore, is highly unsatisfactory and it must have appeared as much even to Dr. Hayek; for in his later book, *Prices and Production* (pp. 66 ff.) he develops a new interpretation à la Mises, to which we shall now pay attention. Voluntary saving, we are told now, leads to a fall in the prices of consumers' goods and, therefore, some of the funds used in those "lower" stages will be shifted to the "higher" stages of producers' goods and price margins will be decreased all round. "Non-specific" producers' goods will be shifted to higher stages, while "specific" ones in the lower stages will be permanently curtailed. There will be a correspondence between loan rates and price margins which is permanent. In the case of artificial or forced saving, on the other hand, for some time everything will go on well until the increased demand for producers' goods has caused a transference of the "non-specific" goods to the higher stages and thus led to a fallen output of consumers' goods. When this scarcity of consumers' goods develops, society "will have to put up with an involuntary reduction of consumption." But society will not for long tolerate this state of affairs; it will react by spending a larger proportion of funds on consumers' goods thus raising their prices. The price margins will be swelled. Non-specific goods will be shifted to the lower stages and specific goods will be left to take care of themselves as best they can. The process of liquidation will, when it comes, be slow, painful and irremediable. Dr. Hayek gives the parable of the "enormous machine" on a desert island in this connection.⁴³

The situation would be similar to that of a people of an isolated island, if after having partially constructed an enormous machine, which was to provide them with all necessities, they found out that they had exhausted all their savings and available

⁴³ *Prices*, p. 84.

free capital before the new machine could turn out its products. They would then have no choice but to abandon temporarily the work on the new process and to devote all their labour to producing their daily food without any capital.

This explanation depends for its validity upon the single assumption of the Subsistence Fund being insufficient during what may be called the "critical gap" between the time when the producers' goods are turned into the higher stages causing a scarcity of consumers' goods and the moment when the new consumers' goods issuing from the production process begin to appear on the market. Mises⁴⁴ speaks more explicitly of this exhaustion of the Subsistence Fund and of the real savings and both he and Dr. Hayek follow a certain tradition in this regard. But it must be said that neither this revival of a dead dogma to fit in with the "critical gap" nor the psychological fiction of a society getting desperate helps their thesis at all. Dr. Hayek will have to prove, in the first place, that a scarcity of the means of subsistence does actually develop in the social economy at this critical juncture, before he can use it in support of his theory. And here, most of all, is the statistical pitfall which has not been obvious to Dr. Hayek and his associates only because of their supreme indifference to *Konjunkturstatistik* and to the fact that in the upward course of the cycle, there never arises the problem of the "critical gap" at the juncture which he has chosen as a peg to hang his theory on.⁴⁵

What remains of the parable cited above? In my view, it is quite irrelevant, as the situation therein pictured and the one postulated by Dr. Hayek are not in *pari materia*. In the first place, the uniqueness of the machine is disputable and *from the point of view of the construction period*, as even Dr. Hayek will admit, there cannot be any incompleteness of any places of real capital that is worth considering during any phase of the cycle.⁴⁶

⁴⁴ *Theory of Money and Credit*, pp. 357 ff.

⁴⁵ See, e.g., *World Production and Prices, 1925—33*, (League of Nations), pp. 130. Statistics of output, never collated before on this scale, for various countries show that, during 1925—33, consumption output rose and fell *pari passu* with investment output though not to the same extent. For reasons of space, I cannot reproduce the statistics here. They also show a continuity of causation between producers' and consumers' goods and contradict any suggestion that at any time in the boom period there is any scarcity of consumers' goods as such.

Where, then, has been the snag of this seeming illogicality of actual facts? It lies, in my view, in the artificial assumption made by Dr. Hayek of there being no unused resources at all before the upward swing began.

⁴⁶ Dr. Hayek might well say (*Cf. Monetary Theory*, pp. 223-24, footnote) that "even completed plant may represent part of an incomplete process," but he is

If there is a shift of non-specific goods as a result of rising consumption prices during the crisis, the completed specific goods can very well aid the production of non-specific goods. Secondly, there can be no exhaustion of voluntary savings, which may be said to hold up further investment, so long as there are unused resources lying about and there is the banking system capable of extending credit; for, it is not *voluntary savings* which are lent and borrowed but *purchasing power*, be it natural or artificial. Even Böhm-Bawerk's savings, in the final analysis, become the release and availability of productive powers. Can it be said that there are no productive powers left when the boom collapses or in the subsequent stages of the cycle?

X

Such is the jerry-built structure of Dr. Hayek's neutral-money ideology. Let us now consider his methodology, his conclusions of policy in monetary matters. In this he is even more disappointingly vague and where he is definite he is even more undoubtedly misguided. On a full and comprehensive view, one cannot fail to have the impression that Dr. Hayek's neutral-money doctrine is a mere torso and remains undeveloped in most essentials. This very lack of concreteness has been helpful to Dr. Hayek in avoiding all possible controversial features and creating a *prima facie* appearance of credibility. In economics, as in other social sciences, it is unfortunately the case that those who are precise and explicit have to run the gauntlet of criticism and it is not in everybody to emerge unscathed. Being busy with his tirade against "elastic currency," Dr. Hayek has no time to devote to his own monetary panaceas. His practical proposals, so far as can be gathered include three items, which somewhat overlap: (a) constant effective quantity of money, (b) the equilibrium rate of interest as a banking norm, (c) "liquidation of maladjustments." It is clear that (a) and (b) are weapons to be utilised for the *maintenance of an existing equilibrium* and (c) only during the depression phase of the cycle. Dr. Hayek's constant effective money and equilibrium rate can evidently be of little avail in a disequibrated economy; for, in such a one, it will lead to mere stabilisation of a perpetual depression, while "liquidation of maladjustments" is a poor solace in a deep depression.

more dogmatic than realistic in this and just availing himself of the loophole in his capital theory, *viz.*, the indefiniteness of the production period and its length. He cannot tell where it all begins and ends!

Dr. Hayek makes damaging admissions as to the actual ascertainment of both (a) and (b). In regard to the former, there are difficulties which make "the possibility of ever actually fixing its magnitude highly questionable," and, again, "the natural or equilibrium rate . . . is incapable of ascertainment and even if it were not, it would not be possible, in times of optimism, to prevent the growth of circulatory credit outside the banks."⁴⁷

I shall take up (b) and (c) first, as being merely ancillary to the main issue. Dr. Hayek gives us no objective criterion regarding his "equilibrium" rate. He tells us vaguely that it is the rate of interest "which would exclude all demands for capital which exceed the supply of real capital,"⁴⁸ to which he would add an addendum that it should enable banks to lend in addition such amounts as may have been saved but not invested. But this leads us nowhere, quantitatively, as we have seen. And even if it did, there are other difficulties to be faced, as we shall see in a moment. Nor can Dr. Hayek say that it is the rate which keeps money neutral, so as neither to lengthen nor shorten the production-period (*pace* Mises). For, how are the banking authorities to know that the period is being lengthened or shortened? Not surely by measurement of the total volume or value of new real capital, as that, as Dr. Hayek would be the first to protest, does not tell us anything about the stages or the length of processes. Not surely by reference to stock exchange speculation, for this has only a distant and doubtful bearing upon real investment. And even granting that they could measure changes in the length of the period or just merely appreciate the fact of such changes, how would they be able to distinguish between changes which were *justified* by voluntary savings and those which were not? It does not imply any non-acceptance of the very scientific theories regarding the genesis of bank deposits, popularised by Wicksell, Phillips, Crick, Keynes and others, to say that although the bankers are undoubtedly capable of extending credit indefinitely, subject to certain elastic limitations, in a completed picture of dynamic pulsation of bank credit, they can hardly *distinguish* the genuine or justifiable from the artificial or created deposits, so that the whole advice, that they should observe a savings-investment parity (in any sense of the term) is rather gratuitous. Accompanied by another objective criterion (such as that, *e.g.*, prices should be stable or falling to a specified extent), on the other hand, even a mere theoretical enunciation of

⁴⁷ *Prices*, pp. 96 and 108.

⁴⁸ *Ibid.*, p. 108.

the dogma may be entirely to the point. Another objection against Dr. Hayek's equilibrium-rate theorem is that Dr. Hayek has nowhere clearly stated what is the relationship between his construction of price margins (which he has developed to suit his other hypotheses) and this theorem. For instance, in one place,⁴⁹ he asserts that the rate of interest "must be kept sufficiently below the equilibrium rate to make profitable the employment of just this sum (*viz.*, the additional credit to be inserted) and no more." He assumes that the supply and demand curves will show that by lowering the market rate to an ascertainable extent below the equilibrium rate will make the entrepreneurs borrow the additional credit. And yet, only a little while ago, he has emphasised that the system of price margins will also correspond to the new rate of interest and that price margins form in comparison with interest rates a guide for the decisions of entrepreneurs.⁵⁰ It is clear from these observations that Dr. Hayek holds very nebulous views regarding the function of the "equilibrium" rate in his system.

XI

This brings us to the theory that the "liquidation of maladjustments" is the only essential prerequisite to the rehabilitation of industry after a depression has set in and that the only way permanently to "mobilise" all available resources is "not to use artificial stimulants . . . but to leave it to time to effect a permanent cure by the slow process of adapting the structure of production to the means available for capital purposes."⁵¹ This vapidty has been elevated to the rank of a doctrine by the Austrians and Dr. Hayek makes it the "only maxim of policy,"⁵² while even Professor Robbins (in his *The Great Depression*) adopts it as his credo. The reason for non-interference by banks, once depression is under way, is stated to be that reflation would only sow the seed of new disturbances and new crises, which as a cure may be worse than the malady itself. I am not concerned here with the imaginary fears of a new crisis developing, which would be "worse than its predecessor," except to the extent of permitting myself to observe that it is a strange doctrine which would not go in for a *certainty* of present cure for

⁴⁹ *Prices*, p. 76.

⁵⁰ *Ibid.*, pp. 74-5; see also *Monetary Theory*, pp. 212-17.

⁵¹ *Prices*, p. 87, *et passim*.

⁵² *Ibid.*, p. 108.

fear of the mere, undemonstrated *possibility* of a relapse. I shall, however, deal with the specific issue of liquidation. The Austrians and the deflationists have not told us how this would help. It may be interesting to try to regenerate a system through amputation, but there are other complications of which we must take note. Firstly, liquidation of maladjustments or of the longer processes, as a remedy, can only be of a secondary importance, as it is capable of a certain degree of psychological impulsion only. It cannot exert any permanent, powerful or active influence on the industrial situation. A few bad concerns—which, be it remembered, are not always “bad” intrinsically, but due to extraneous factors, like a disastrous fall of prices,—might perhaps be reorganised or closed; but what guarantee is there in this for the revival of industrial activity? In a period of depression even sound concerns, which have invested in “justifiable” processes, find it difficult to make ends meet, as the prices they obtain are below their normal costs. Moreover, the market is always very susceptible to sympathetic influences owing to the close interconnection of processes. If some bad businesses fail and the long processes are liquidated, would they not cause a general *débâcle*, the good and bad going down together? And would this not lead to a cumulative spiral of deflation leading to the continuous shortening of processes and giving rise to the necessity of liquidation in the case of well-established businesses and justifiable processes? Throughout history, it has been the positive aid of some artificial or adventitious circumstance, either monetary or otherwise, that has brought about rehabilitation after a course of depression. Nowhere have we an instance of readjustment by liquidation, such as Dr. Hayek and those of his persuasion have in mind. The conclusion, therefore, emerges forcible and inescapable, that the liquidation theory is a mere figment of the imagination having no valid basis in the world of facts. One does wish its proponents had devoted as much attention to the recent upward swing in the world’s business caused by partial, though, halting reflations made possible all over the world by a new monetary heterodoxy, as they have to the fact that unit costs were falling in the United States, while prices were steady in the boom period prior to 1929.

XII

I purposely postponed discussion of “constant effective quantity of money” up till now so as to be able to focus all the earlier arguments on its nebular contents. In Dr. Hayek’s view the barter hypothesis, the savings-investments balance concept, the

equilibrium-rate construction and neutrality of money, all point to the same monetary ideal, *viz.*, constant money. Yet on careful scrutiny the entire argument will appear to collapse like ninepins, and it must be clear that neither in the sense, which Dr. Hayek attaches to it nor in any other, is it capable of performing the miracles which he attributes to it. Apart from the difficulties connected with "social savings," which Dr. Hayek has completely ignored, there are other practical hindrances in the way of Dr. Hayek's constancy leading to neutrality of stable production. In his definition of "quantity" there are two dimensions: (1) monetary media and (2) velocity. As and when there are "changes in the proportions between the total flow of goods or that part which is effected by money, or as we may tentatively call that proportion, of the coefficient of money transactions,"⁵³ due to financial or other factors, these should be compensated by changes of an opposite character in quantity dimension No. 1. Changes in effective quantity or in velocity or in the "coefficient" might arise from saving or integration and differentiation of processes, or other causes. Finally, Dr. Hayek would indiscriminately compensate for all changes in velocity whether such changes are initiated by changes in commodity-turnover, or in person-turnover, or in the size and character of firms.

This account should be sufficient to show the irrelevancy of the quantities at issue. Dr. Hayek has been quite careful in distinguishing the various forms of monetary media, but he has not devoted the same attention to the multiplicity of monetary streams (which, *e.g.*, is so brilliantly expounded by Keynes in his *Treatise*, vol. i, ch. 2-3 and vol. ii, ch. 23-26) and, as for his *obiter dicta* on velocity of circulation, they are the most astounding stuff which one has come across for some time. The elements in money, which Dr. Hayek considers in his exposition, are "besides the regular types of the circulating medium, such as coin, bank notes and bank deposits," bills of exchange, book credit and, lastly, "circulatory credit" outside the bank (which seems quite a *je ne sais quoi*). Dr. Hayek thus evidently is considering money *en masse*, something like Schumpeter's "circulation sphere," and his velocity is of the "omnibus" variety. To handle these crude quantities, so as to reach the specific categories of the "coefficient of monetary transactions" and money flows directed to producers' goods and consumers' goods, would be the same thing as to perform a delicate operation

⁵³ *Prices*, pp. 45 ff., and 92 ff.

with a blunt and unwieldy axe instead of with a lancet. Dr. Hayek's position is, that, if the demand for consumers' goods relatively to that for producers' goods changes from 1:2 to 1:3, the correct extension of stages in production would be in the ratio of 2:3, and this would be feasible only if the money expenditures on producers' goods increase by the same absolute amount as money expenditures on consumers' goods decrease. Dr. Hayek naïvely asks us "Will not such changes in the proportions of money transactions to the total flow of goods make a corresponding change in the quantity of the circulating medium necessary?"⁵⁴ Dr. Hayek satisfies himself that the answer is in the affirmative. Yet, he is aware of the difficulty involved in seeing that the new purchasing power "came into the hands of those who actually require it," but he dismisses this difficulty, with a characteristic unpreparedness to face facts, saying that "from the point of view of pure theory," it "may not prove insuperable,"⁵⁵—as if it could ever be a *theoretical* difficulty! Dr. Hayek is not aware that bank loans may be used for a variety of purposes including consumption, loss-financing, investment and speculation and that there are several unknown quantities acting like buffers between the initial stage of insertion of new money and its absorption into the actual stages of production, so that the relation between the new money inserted and the proportion of it, which goes into "operating funds," can never be known.⁵⁶

As regards organic changes, Dr. Hayek contributes some interesting absurdities to the velocity discussions while narrating what would happen in the event of integration or differentiation of processes.⁵⁷ He gives the example of a spinning-and-weaving firm being divided into two separate firms and believes that instead of one whole wage bill, there would be two wage bills (together equal to the one before) and, *besides*, the new weaving firm will require "additional money balances to buy the yarn," from the new spinning firm. This, however, is a superficial view of the matter. On closer thinking, it should be obvious that the spinning firm's wage bill, under *dynamic* conditions, would be wholly supplied by the money spent by the weaving firm (the

⁵⁴ *Ibid.*, p. 102; also pp. 45 ff.

⁵⁵ *Ibid.*, p. 107. Italics mine.

⁵⁶ H. S. Ellis, *German Monetary Theory*, p. 354, criticises Dr. Hayek's constant money doctrine on these same lines. I am not, however, in sympathy with his other criticisms, e.g., his "major objections" on p. 350.

⁵⁷ *Prices*, pp. 61, 103.

source of which is the sale of its cloth) on buying the yarn. On the other hand, there will be no saving of funds, if two separate stages unite, by parity of reasoning. There are, however, two points to be considered: Firstly, organic changes, indeed, increase or reduce velocity of circulation to some determinate extent, but this would be neutralised by corresponding changes in goods turnover and, therefore, from our standpoint this fact is not of much consequence. Secondly, only the contingency reserves, as distinct from operating funds, will have to be greater in the event of differentiation and smaller in that of integration than before. When, on the other hand, Dr. Hayek seriously proposes that changes in "what is commonly called the velocity of circulation" should be "compensated by a reciprocal change in the amount of money in circulation," (p. 107, *Prices*) we at last reach the finale of the whole comedy. Here indeed constancy of money becomes too "belligerent" to be at all neutral, in so far as it ignores even justifiable commodity turnover, and, therefore, actively interferes with the system of production.

What Dr. Hayek should have realised is that there is no unique relation between constant money and either the costs or the prices of any determinate mass of goods coming on the market. There is no reason to believe that constant effective quantity of money, in any sense whatever, would lead to costs-prices parity. When productivity is increasing, it would, therefore, lead to serious disturbances by creating windfall profits. The conclusion emerges that constant money is as far from stabilising production as (*e.g.*) the stability of prices in the $MV=PT$ sense would be. The latter tries to reach a narrow category of relevant dealings through the two hotch-potches of the Cash Transactions price level and the *tout ensemble* of transactions. Dr. Hayek's constancy, likewise, as shown above, misses the bull's eye by a wide margin and for similar reasons. In this connection, it may be noted that Mr. Meade's constancy of Final Incomes or Professor Pigou's "standard money" are decidedly nearer the mark, as dealing directly with quantities of goods and money, which bear a determinate scheme of relations with one another. However, the orientation of my own mind is that industrial stability will be best secured by stabilisation of the costs-prices parity.⁵⁸ Such stabilisation of the parity means

⁵⁸ As developed in my new book, *The Theory of Monetary Policy*, pp. 53 ff. A little reflection will show that this is not identical either with the stability of price level, or of cost level, or of money incomes per unit of factors of production or of the "labour value of money."

not that the monetary authority should *allow* output prices to fall *pari passu* with falling costs of output (under conditions of increasing productivity) but that it should from time to time *compel* them to fall, to the necessary extent, so as to remain in constant adjustment with the latter.

THE JHARIA COAL INDUSTRY

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History and Development.

The coal industry, particularly the Jharia coalfield, has come of late to claim a good deal of public attention due chiefly to the disastrous fires occurring in quick succession at the three important collieries of Bagdigi, Giridih and Loyabad, but partly also because of the prominence given by the Press to the views of certain experts like Sir Lewis Fermor and Dr. Cyril Fox about the possibility of the exhaustion of the supply of good metallurgical coal due to wasteful methods of production and consumption followed in this country. That the use of coal was not entirely unknown in India before the advent of the British is proved by the occurrence of such place names as Barakar (meaning chief mine), Kalipahari (meaning hill of coal), Angarpatra (meaning stone of charcoal), and Damodar (meaning fire in the stomach or bed). All the above places are at present important centres of the coal mining industry. But owing to the lack of the means of communication and the comparative abundance of wood the use of coal as fuel was confined to the immediate vicinity of the places where coal deposits occurred. There is a local tradition current in the Jharia coalfield as to how the use of coal spread and a trade in coal developed. The tradition asserts that in the early days people from Midnapore used to come up the Damodar with boats laden with salt which they sold to people along the route. It so happened that once when the merchants had anchored their boats at a place called Nonachra (about 2 miles from Raniganj) and had made their ovens for cooking their food on what they thought to be black rock, they found that very little wood fuel was necessary, as the black rock took fire and began to burn, thus helping them to cook their food. On enquiry from local people they were told that the black rock was "Pāthar Kailā" and could be burnt. While leaving the place they took a boat-load of this rocky coal with them and thus the use of this fuel was made known to the world outside.

The first Englishman to discover the existence of coal in Bengal was probably Mr. Suetonious Grant Heatly who, in 1774, was the Collector of Chotanagpore and Palamau. He, along with one John Sumner, submitted in 1774 a memorial to Warren Hastings for a license to work coal mines in Pachete and Birbhum. The license applied for was granted and the first coal mine was opened in 1774 near Sitarampur. The chief use of coal in India about this time was by the East India Company who used it in their arsenals for fusing metals for casting ordnances and the coal used came from England as ballast in sailing ships. For a long time doubts were expressed about the quality of Indian coal and it could not make much headway. The first mention of Jharia in connection with coal occurrences in the Damodar valley is to be found in a proposal submitted in 1777 to Government by Messrs. Motte and Farquhar to cast shot and shell in the pergunnah of Jerriah. With the establishment of the Geological Survey of India in 1856 the coal deposits of Jharia came to be definitely located. In 1890 the East Indian Railway Company deputed their mining engineer Mr. T. H. Ward to make an examination of the resources of the Jharia field. His report was very favourable and the East Indian Railway immediately undertook the construction of a new line from Barakar to Dhanbad which was opened in 1894. The B. N. Railway authorities, too, established their own connections with the Jharia field. With the establishment of railway communication the importance of Jharia steadily increased. In 1908 the headquarters of the Gobindpur sub-division were transferred to Dhanbad ($4\frac{1}{2}$ miles from Jharia) and the sub-division was renamed Dhanbad. In 1909 the headquarters of the department of mines in India were removed from Calcutta to Dhanbad. It has now been decided to construct an aerodrome at Jharia. Upward of 200 million tons of coal have been raised from the Jharia field since 1894, which at a price of Rs. 3 per ton, is worth sixty crores of rupees. Since 1908 the Jharia coalfields have been supplying about half the total coal produced in India. The area of the field is about 150 sq. miles and is estimated to contain about 20 thousand million tons of coal, of which ten per cent is of good quality suitable for the manufacture of metallurgical coke. The mining settlement of Jharia had in 1933 a population of 534 thousand souls of which 73 thousand were actual workers.

In 1933 there were 219 mines in the Jharia field but 67 per cent of the output of the Jharia coalfield came from collieries controlled by no more than 13 firms of managing agents. The

average number of workers employed per mine was 350 and the output per mine was three thousand tons a month. The output per worker was 133 tons a year, which is only one-fifth of that in U. S. A. and only half of that in Japan and Great Britain. In the Jharia field 18 seams of coal have been traced. The first six seams, starting from bottom upwards contain coal of very inferior quality and at present are not worked at all. Seams 7, 8, and 9, contain coal of inferior quality approximating to grade III of the Coal Grading Board; seams 10 and 11 yield somewhat better coal of grade II; seams 12 and 13 yield grade I coal, while the best quality coal (selected and super-selected) come from seams 14, 15 and 17. Coal from seam 18 is stony and is not of much use. The conditions of working are particularly favourable in the Jharia coalfield, where there are not less than 10 seams of coal deposited one above another, and all these seams have cropped out on the surface in their proper places where quarry work is carried on. With few exceptions the seams are nearly level, the inclination being only one in ten. The sandstone roof is generally good and the seams are thick, varying from 20 to 30 feet. Gassy mines are very uncommon and naked lights can generally be used, and except in a few gassy mines no fans have been installed for ventilation underground. Geological disturbances (dykes and faults) are few. Quarry work is extensively used on the outcrop lines, but where this is not possible, inclines have been driven or pits sunk to get at the coal seams. The general depth of the pits is from two to five hundred feet and in rare case exceeds a thousand feet. The method of extraction generally followed is known as the pillar and the stall system. Under this method when the shaft or incline has reached the level where work on the coal is to start, two series of galleries, at right angles to each other (one series along the dip of the seam), are driven right up to the boundary of the area to be worked. All the coal is thus extracted except the pillars formed by the spaces between the galleries. The pillars support the soil above the coal and protect the workings. Where the thickness of the seam is considerable two or more storeys of galleries are driven with a coal layer of 8 feet thickness left between them. Such a method of working yields about 40-50 per cent of the coal available, the rest being left in pillars. To avoid this waste an improved method of working is being gradually adopted; under which the coal left in pillars is extracted by driving small galleries through the pillars themselves and supporting the roof by wooden props when even the remaining pillars are being removed. More than

80 per cent of the available coal can be removed by this method. Soil subsidence, with the attendant risks of flooding and fires, can be prevented by sand packing, which is, however, mainly due to the additional cost involved, hardly taken recourse to in the Jharia field. Picks are most commonly used for cutting coal but country powder is used for blasting where the workings are hard. Coal cut is collected in wicker baskets and carried on the heads of coolies up a long or short lead to the tubs stationed on the tramway line and emptied into them. The tubs are then hauled up the incline, four or six at a time, by steam power or raised up shafts in cages.

Coal as it is raised from the mine is separated into two classes (a) steam coal and (b) slack. The slack is put through a screen and divided into rubble and dust. Rubble is mainly used for baking bricks in kilns, while dust is used for baking bricks by the modern method with the help of chimneys. Dust is also used for making hard coke for metallurgical purposes. Hard coke is generally made from high-grade coal. Two methods of making hard coke are in use: the open hearth or beehive oven process and the by-product oven or low temperature carbonisation process. The first process is mainly followed by small Indian colliery proprietors and is a wasteful process; the quantity of coke recovered is about 40 per cent of the coal used, while valuable by-products like coal tar, ammonium sulphate, etc., are entirely lost. Under the second process about 70 per cent of the coal used is recovered as hard coke besides the useful by-products like coal tar, benzol, creosote, ammonium sulphate, etc. Special and expensive plant has, however, to be set up for this purpose; and few Indian colliery owners can afford it. The steam coal raised is either sold as such in the market to be used for generating power or converted at the colliery into hard or soft coke. Soft coke is almost always made of inferior quality coal and almost exclusively by Indian collieries. Soft coke is mainly utilised for domestic purposes. Soft coke yields about 50 per cent of the coal used, the by-products in this case, too, being entirely lost. In 1933 about 60 thousand tons of hard coke and 784 thousand tons of soft coke were produced in the Jharia coalfield.

A coal-mine is a wasting asset and should be carefully exploited. In the opinion of competent authorities like Dr. Sir L. Fermor and Mr. R. R. Simpson the easily accessible supply of the better class of coal in the Jharia field is likely to be exhausted, at the present rate of consumption, in another 20 or 30 years' time. In view of this, every wasteful method of

extraction and consumption should be avoided. The waste arise chiefly from four sources: (1) inefficient methods of working, (2) loss in boilers, (3) loss in carbonisation, (4) loss by fires. It was computed in 1929 that 131 million tons of first class coal had been left as pillars in the Jharia field alone. In 1927 the Chief Inspector of Mines computed that about 7 per cent of the annual output of coal was consumed at the collieries, chiefly in boilers, dhowras, quarters, etc. The loss in carbonisation in the making of soft and hard coke by the indigenous process has already been noted. The loss of coal by fires is also appalling. An Inspector of Mines calculated in 1929 that the amount of coal lost by fire or locked up in fire areas was 15 million tons in the Jharia field and the whole of the coal so lost was of the selected and the first grade. During the last 15 years fires have occurred in 21 collieries in Bihar and Orissa. Two other sources of waste arise from (a) small holdings and (b) the managing agency system. According to mining regulations 50 feet of barrier coal has to be left all round the boundary of each colliery and this leads to a great waste of coal where there is a large number of small independent collieries. Under the managing agency system, owing to the practice of paying commission to the managing agents based on the profits earned, it is the interest of the agents to work the mine somewhat heedless of the future and with the sole object of getting for themselves as much commission as possible during the currency of the contract.

Organisation of a Coal-mine.

It is interesting to note that the right to minerals under the surface is vested in the Zamindar in the permanently settled areas of Bengal and Bihar and Orissa, while the right accrues to the state in the temporarily settled provinces. Coal land, which in the Jharia field belongs chiefly to the Jharia Raj, is taken on lease for periods of 50, 99, or 999 years by a prospective colliery proprietor. The landlord is paid a lump sum as Salami (in one case a sum of Rs. 35,000 was paid as Salami for a lease of 100 bighas of coal land) and a recurring royalty at 4 to 8 annas per ton of coal despatched. After the land has been secured, boring operations are undertaken, inclines are driven or shafts are sunk, rails are laid, steam engines or electric motors are installed for hauling wagons and pumping out water. Arrangements are made with railway authorities for the provision of an assisted railway siding to facilitate the despatch

of coal to the market. The biggest and most up-to-date mines are under European management and ownership. In the case of these mines ownership is invariably divorced from management, the important firms of managing agents in the Jharia field being Jardine Skinner & Co., Kilburn & Co., Bird & Co., Andrew Yule & Co., Mackinon Mackenzie & Co., Turner Morrison & Co., Gilanders Arbuthnot & Co., Anderson Wright & Co. Where there is more than one mine under the same management, the supreme control on the spot is vested in the Colliery Superintendent, under whom there is a manager for each mine. Under the manager there are assistant managers, one in charge of each pit or incline. In each pit there are a number of overmen each in charge of a section of the pit; in each section again there are a number of Mining Sardars who supervise the work of a number of gangs of miners, each in charge of its own gangman or Sardar. Besides the above officials there are in each mine a Chief Engineer (under whom there are other engineers, fitters, electricians, tindels, etc.) and a Mining Surveyor. The Mine Manager is responsible for the observance of the provisions of the Indian Mines Act. The employment of the Mine Manager, Mining Surveyor, Overmen and Mining Sardars is compulsory under the Mines Act. In the case of Collieries in Indian ownership, a Managing Director or a Working Partner is stationed on the Colliery who arranges for the sale of coal and often interferes too much with the technical work of the Manager.

In working the mine two systems prevail. The labour force may be directly employed by the management which makes itself responsible for the payment of wages and the supervision of labour; or the management may enter into contract with one or more raising contractors, in which case the labourers are employed, paid and supervised by the contractor. In 1929 about 70 per cent of the output of coal in the Jharia field was raised through raising contractors. The raising contractor is paid at an agreed rate (about Rs. 1/8/- per ton) for the amount of coal despatched from the mine (and not the amount of coal raised). The management provides the fixed capital and brings the mine to running order, while the contractor supplies small stores like gear oil, kerosene oil for the use of miners underground, picks and baskets, besides paying the labourers. Even where the contract system prevails, some workers on whose work the reputation of the company's coal depends (such as the shale pickers), or on whose work the safety of the mine or of the expensive plant depends (such as propping

coolies, overmen and mining Sardars) are Sarkari men, *i.e.*, employed directly by the management.

The miners work in pairs—the malkata and his kamin—the male cutting the coal and the female loading it into tubs. The payment is made jointly for cutting and loading and the question of the division of the income does not arise as long as the workers are husband and wife or members of the same family. The miners work in gangs of 10 to 15 under a Sardar who receives payment on behalf of the gang every week and disburses it. The trammers (who haul up the tubs, after they have been loaded, from the working face to the shaft mouth underground) and trolley-men (who push the tubs, after they have been raised to the surface, from the pit mouth to the wharf), the coal loaders (from the wharf on to the railway wagons), the screeners, all work in gangs under their respective Sardars who receive payment on behalf of their gangs and disburse them. The Sardars, who very often themselves work with the gang, are remunerated by a Sardari allowance varying from Rs. 1-8-0 to Rs. 2 per week depending on the number of workers in his gang. The above workers are remunerated by piece rates, the payments being made weekly, usually on Sunday morning. The hours of work till recently were twelve in the case of small Indian collieries and ten in the case of big European collieries. The workers work, on an average, five days a week, partly due to depression in the coal trade and partly due to unwillingness on the part of workers to work longer. Besides the piece workers paid weekly, there are other workers (such as hookmen and on-setters, firemen, etc.) who are paid time wages, payments being made either weekly or monthly. Under the Mines Act a weekly day of rest has to be provided; no child below the age of 13 can be employed either above ground or below ground; the maximum hours of work are 12 daily and 54 weekly for underground work and 60 weekly for surface work. The employment of women underground is being progressively reduced since 1929 and is to be totally prohibited from July 1937. Since October 1935 by a change in the regulations 15 has been made the minimum age of work both for underground and surface work, while young persons between 15 and 17 can work underground only if they have been certified by a competent doctor to be above 15 years of age. The maximum daily hours of work underground has been limited to 9 though the weekly maximum remains the same. It has also been provided that no one working on the surface can work for more than 6 hours at a stretch without getting a rest of one hour.

The following imposts have to be borne by the coal industry at Jharia :

(1) The Jharia Water Board Rate—Each colliery has to pay a cess for the supply of piped water at the rate of 9 pies per ton of coal despatched from the colliery. In return for this payment the colliery gets a free supply of 1000 gallons of water for every rupee of tax paid. For supply in excess of this quantity the colliery has to pay at the rate of 0-12-0 per thousand gallons.

(2) The Jharia Mines Board of Health Cess—The Board of Health levies a cess on each colliery at the rate of Rs. 1-2-0 per hundred tons of average raisings of coal during the last three years.

(3) Road Cess—The District Board levies a cess on each colliery at the rate of one anna per rupee of the average profit made during the last three years. A Bill is pending in the Bihar Legislative Council to change the basis of assessment from profits to the amount of coal despatched.

(4) Choukidari Tax—Every colliery has to pay a Choukidari tax at a certain rate on the number of labourers' housings, each room being reckoned as a house for assessment purposes.

(5) Soft Coke Committee Cess—This Committee, which was set up in 1930 to popularise the use of soft coke in India, levies a cess of 0-2-0 per ton of soft coke despatched from the colliery. The cess is realised along with railway freight.

The Marketing of Coal.

The average annual consumption of coal in India comes to 22½ million tons. The most important consumers of coal are the railways who account for 33 per cent of the total consumption; next in importance come the iron, steel and brass foundries including engineering workshops which take up 20 per cent; while the consumption at the collieries and wastage make up another 10 per cent. Most of the Indian railways (B.N.R., E.I.R., G.I.P.R., B.B.C.I.R., M.S.M.R.) have now their own collieries. In order to help the market during depression the railways produce about one-third of the coal they require from their own mines and purchase the rest from the market. The railways (both State and Company managed) annually invite tenders for coal through the Chief Mining Engineer, Railway Board, Calcutta. Only the best quality coal is demanded and

only those who own coal mines are allowed to supply tenders. In 1936-37 tenders were invited for 4 million tons of steam coal and 30 thousand tons of slack and rubble coal. The coal required by jute mills, paper mills, tea-gardens, steamship companies, etc., which are worked by managing agents, are usually supplied from collieries worked by the same firm of managing agents. Other mills and factories may get their coal either direct from the collieries or through coal merchants. With regard to household and other small demand for coal, the coal merchants intervene between the consumer and the producer. Some of the important coal merchants in the Jharia field are Karamchand Thapar & Bros. Ltd., Sikri Bros., Darbarchand Bros. & Co., S. C. Mukherjee & Co. These firms buy coal from the collieries on their own account and sell it either direct to the final consumer or more often to the depot holders throughout the country. The advantage which the consumers derive from buying coal from the merchant rather than from the colliery owners is that the merchant having the necessary local knowledge can give credit to the consumer or retailer, while he himself gets similar credit from the colliery owner, who would not be willing to extend credit to the unknown distant consumer or retailer. Further, the merchant who has his office in the coalfield can supervise the loading of the coal at the colliery and thus avoid all the bickerings which would otherwise arise between the distant buyer and the colliery owner as regards the quality of coal supplied. It must, however, be noted that the coal merchant is not always above dishonesty nor is the consumer and retailer invariably honest. It was brought out in evidence before the Indian Coal Committee that Bombay merchants mixed inferior coal with superior quality coal and passed off the mixture as superior quality coal. Again, the consumer or retailer to whom a wagon of coal has been despatched, would in some cases refuse to take delivery, entering a flimsy protest against the quality of coal supplied, hoping thereby to induce the merchant, in order to save the demurrage charges, to offer a concession in the price to the buyer. The freight charges make up a considerable proportion of the selling price of coal in distant markets. Where refusal to take delivery at destination has been frequent (as at Khulna or at Stations on the B. N. W. Ry.) the railways in self-defence have adopted the practice of accepting consignments of coal for transport only when the freight has been paid up at the originating station. The colliery owner cannot always afford to produce coal only to order but he has to produce some coal in anticipation of sale even though coal left on the wharf

is liable to deterioration through 'weathering.' Sometimes a colliery sells not particular grades of coal but the 'run of mine' consisting of steam and slack as it comes out from the mine. Before the war Indian coal was used for bunkering purposes at Singapore, Akyab, Colombo, Aden, Hongkong and other overseas ports. But during the coal boom of 1918-19 scarcity of wagons for the transport of coal came to be felt and small industries within the country complained bitterly of the difficulty of obtaining coal. The Government of India, therefore, imposed restrictions on the export of coal from India with the consequence that the overseas market, which had so long depended on Indian coal, came to be captured by South African and British coal. Moreover, the unscrupulous methods followed by Indian coal merchants in supplying coal inferior in quality to that bargained for, was also partly responsible for the loss of the overseas market. Since the beginning of the present depression in the coal trade attempts are being made to recapture the foreign market. With that end in view the Coal Grading Board was set up in 1926. Anyone wanting to export coal can get the coal inspected at the dock by the C. G. Board and a shipment certificate granted. The foreign purchaser to whom the shipment certificate is passed on knows the exact quality of coal supplied and is thus sure of getting his money's worth. Further in order to encourage the export of coal the E. I. and B. N. Railways grant a rebate of 25 per cent on the actual freight rate on coal (except bunker coal) booked from colliery stations and exported from the port of Calcutta by sea to any port in or outside India. Further the surcharge of $12\frac{1}{2}$ per cent on the railway freight is refunded on coal meant for export for which a shipment certificate has been granted by the C. G. Board. The small quantity of foreign coal imported into India competes with Indian coal only at the ports of Bombay and Karachi.

Labour in the Jharia Coalfield.

Out of three lakhs of workers in Indian mines some two lakhs are employed in coal-mines and of these two lakhs of coal-miners more than 60 thousand are working in the Jharia field alone. The earliest miners in Jharia were the 'Bauris,' a low caste tribe of mixed Hindu origin, who in course of time were gradually replaced by the aboriginal Sonthals and Koras. The Sonthals and Koras, in their turn, are giving place to new-comers from the west—the Bhuiyas, Rajwars, Nunias, Beldars, Meahs and the tribes loosely called Bilaspurias. The Bouris, Sonthals

and Koras are mostly employed in underground coal cutting, the Bhuiyas and Rajwars are mostly loading coolies and trammers, the Nunias and Beldars are almost exclusively earth cutters, the Bilaspurias have a special liking for quarry work, machine coal loading and earth cutting; while the Meahs (or Julahas) are engaged mostly on surface work such as building, engine tending, screening, coke making, etc. The largest proportion of imported labour comes from the Hazaribagh, Monghyr and Gaya districts of Bihar and the Bilaspur and Raipur districts of the Central Provinces. The human material is of the rawest character and with few exceptions the workers are illiterate. In the early days of mining there was a scarcity of labour at the mines and possibly that accounts for the prevalence of the contract system of working. The scarcity of labour is now a thing of the past, though the contact with agriculture is still very intimate; and the Bouris, Sonthals and Koras visit home almost every month, if not every week, either to attend to some Puja or marriage or agricultural operations. This is responsible for the seasonal scarcity of labour which is a feature of the mining industry in India and leaves its mark on the raising of coal which is at its maximum in February and at its minimum in August. The upcountry workers are more regular in their attendance though even they visit their homes once every two or three years. An increasing proportion of the upcountry labourers are taking permanently to mining work and many have been born in the coalfields and have never visited home since their birth. This is particularly true of the Meahs or Julahas. Women formed a large proportion of the labour force in the mines, most of them working as loaders. Children work chiefly as shale pickers. The workers work in gangs often or more under a Sardar, the members of the gang, including the Sardar, usually belonging to the same village. The Sardar receives payment on behalf of the gang and disburses it, represents the grievances of the workers to the management and lends money to the members of his gang usually free of interest. The workers seem to prefer the Sarkari system of working to the contractor system, as under the former system payment is more regular and the chances of oppression and bribery are less. Mr. J. Thomas of the Mining and Geological Institute says that the managing contractor system "lends itself to great abuses and should be made illegal." The restriction of underground working for women is proving a mixed blessing. It will no doubt put a stop to the practice of doping children with opium by working mothers and raise the health and moral tone of the female population in the mining

area; but it has the immediate effect of reducing the family income and affecting adversely the economic position of the family. Once the depression in the coal industry is lifted the male workers may succeed in getting their wages raised and in adopting more regular methods of work to make up, to some extent, the loss of family income due to exclusion of women. The employers may try to meet the higher labour cost by greater mechanisation and the adoption of more up-to-date methods of work. The employers generally now advocate complete exclusion of women as they are now faced with the difficult problem of deciding whom to allow to go underground and whom to keep out with any show of justice and fairness. Further, it is widely held that the law restricting the underground work of women is generally evaded, so that honest managers are at a disadvantage in competition with dishonest ones. Again, if as a result of the exclusion of women from underground work, workers come to the mining area without their women folk (as is said to be the tendency among the Hazaribagh and Gaya miners) it might increase the periodical exodus of the workers from the mines to their native place and intensify the vices characteristic of industrial areas.

Drink and indebtedness are the two widely prevalent vices characteristic of mining labour at Jharia. The Whitley Commission estimated that in 1928-29 the expenditure on drinks and drugs in colliery areas of the Dhanbad subdivision was not less than ten lakhs of rupees. The Bouris, Koras and Sonthals, both male and female, drink heavily and so do the Bhuiyas and Mushars. They drink so heavily on Saturdays and Sundays after they have received their weekly wages, that they can hardly come to work on Mondays and even on Tuesdays the attendance is not full. Of late owing to the introduction of the outstill system the drink evil has been aggravated. It is the Bilaspurias and the Meahs who are not addicted to drink; but it is said that the former are prone to gambling and the latter frequent the cinema house which has recently been set up at Jharia. The workers, particularly the upcountry men, borrow with a levity which ignores altogether their repaying capacity. Debts are incurred in time of sickness, unemployment, festivals, etc. and from all sorts of persons, such as Sardars, contractors, shopkeepers, office Chaprasis and Kabuliwallas. The rate of interest paid is usually fairly high, half an anna per rupee per week is quite a common rate. The practice of buying articles on credit from the shopkeeper is common and the shopkeepers charge a considerably higher price for selling on credit. Sometimes the

contractor or his men run a shop in the colliery area and make it a source of considerable profit. Complaints about adulteration and fraudulent weights are sometimes made against the shop-keeper. When the indebted worker finds no possibility of repaying his debt and the pressure of the creditor makes the place too hot for him, he stealthily leaves the place one night and migrates to another colliery a few miles distant. It is said that the Sardars and contractors are not unwilling to lend money to the worker in the hope of retaining a hold upon him. Cooperative Stores and Credit Societies are conspicuous by their absence from the mining area.

The employers complain that the workers have a low but rigid standard of life and are not inclined to improve their condition even when opportunities of increasing their income are offered to them. Thus, though the worker stays underground for 9 or 10 hours a day, he puts in only 3 or 4 hours of effective work. He is content with earning a certain minimum and would not work longer than is necessary to earn this sum. Hence when commodity prices fall or wages increase, the miner produces less through working fewer days per week and fewer hours per day. There is undoubtedly some truth in this contention; but there is also some truth in the contention of the workers that taking the nature and environment of their work, their physique and dietary, three hours' effective work is all that they are capable of doing in a day, and in their squalid surroundings drink is the only enjoyment they can think of.

There has been an enormous improvement in the housing condition of labourers in recent times. In the Jharia field every worker is provided with rent-free quarters, free fuel, free lighting, free supply of pipe water and free medical treatment. The Jharia Mines Board of Health, instituted in 1914, have laid down fairly stringent rules which regulate the housing condition of the workers. Only 25 years ago workers lived in hovels made of leaves, so low that entrance into them had to be effected by crawling, and so cramped that it was difficult to lie down full length on the ground, while during the rains they would be unfit even for pigs to live in. In their place we now find decent dhowrahs, brick-built, white-washed and some even with double storeys. Before the supply of piped water began in 1925 the visitations of the epidemics of cholera and small-pox were annual. All these are now things of the past. The only scourge that remains is leprosy. At Jharia leprosy cases are fairly common, about 7 per cent of the workers (?) are affected by it. Attempts are, however, being made to tackle the problem. Three

leprosy clinics have been opened at Jharia, Dhanbad and Katras. At Jharia alone there are 1300 lepers on the register. Employers seem to be agreed as to the necessity of introducing free and compulsory education in the mining area. In most mines with a large labour force primary schools have been provided at the expense of the management at which education is imparted to the children of the workers free of charge. It must also be said to the credit of the management of big collieries, particularly the European managed ones, that practice is in advance of the law. Many of them have voluntarily introduced schemes of maternity benefit, sickness benefit, accident benefit, free medical treatment, etc. Something more, however, may be done to improve the administration of these schemes to make the benefit more real and prompt. Something has already been done to impart technical education to the miners in the evening classes held at Jharia and Sijua, thrice a week, under the care of three competent teachers.

Labour Associations.

Among a labour force almost wholly illiterate, drawn from heterogeneous sources such as aborigines, local tribes, upcountry men and Muslims and not wholly devoted to mining, it is very difficult to form strong labour organisations. The difficulty is increased by the wide area over which the labourers are scattered in this field. Therefore though Jharia claims to have three registered Trade Unions, yet the unions do not seem to exert much influence on the life and working condition of the labourers. The history of the labour movement in the Jharia coalfield goes back to 1920 when Mr. I. B. Sen, Bar-at-law, who had come to defend in a criminal suit certain clerks accused of assaulting a colliery manager, organised the Indian Colliery Employees Association and became its first president. The members of the Association were mostly clerks employed in the colliery offices in the Jharia coalfield; and the office of the Association was located at Dhanbad Bazar, as its office-bearers were members of the Dhanbad bar. The labour movement at Jharia received some impetus in 1921 due to the activities of one Biswanand Swami, who organised some sporadic strikes and was instrumental in having the second session of the All-India Trade Union Congress held at Jharia in 1921. Immediately after the Congress was over the wages of the miners were doubled almost overnight. In 1924 Mr. P. C. Bose was appointed the whole-time paid Secretary of the I. C. E. Association; and he was instrumental

in having its membership thrown open to manual workers and getting it affiliated to the All-India Trade Union Congress. Among the chief activities of the Association are (1) attempts to redress individual and general grievances, (2) litigation for realising compensation money and unpaid wages, (3) organising strikes when necessary and (4) lectures on hygiene and sanitation in cooperation with the Jharia Mines Board of Health. This Association succeeded in inviting the ninth session of the All-India Trade Union Congress to Jharia in 1928. The secretary of the Association, Mr. P. C. Bose, went to Geneva in 1928 as an adviser to the Workers Delegate to the International Labour Conference. In 1931, with a view to getting the Association registered under the Trade Union Act it was found necessary to redraft its constitution. Accordingly the old Indian Colliery Employees Association was dissolved and it was renamed the Indian Colliery Labour Union and registered under the Trade Union Act in 1932. As a result of internal dissensions some of the important office-bearers of the union left it in 1933 to form the Indian Miners Association which was registered under the T. U. Act as a separate union in the same year. The Indian Miners Association was also affiliated to the National Trades Union Federation, while the affiliation given to the Indian Colliery Labour Union was withdrawn. The Indian Miners Association claims to have a membership of 2500 consisting mainly of miners, though including some skilled manual workmen and clerical staff. Subscriptions at the following rates are levied from its members:—(a) miners and weekly paid manual workers at one anna per month, (b) members drawing a monthly salary below thirty rupees at two annas per month, and (c) members with monthly salaries exceeding Rs. 30 at four annas per month. Besides the Indian Miners Association and the Indian Colliery Labour Union there is a third trade union under the name of the Tata Collieries Labour Association which is also registered under the T. U. Act. Its membership is confined to employees of the Tata Collieries. In 1933 it had a membership of one thousand composed mainly of miners and manual workers. The rate of subscription varies from one anna to Rs. 1-8-0 per month. The mine managers, too, have an association of their own.

The employers in the Jharia field are also organised under the Indian Mining Association and the Indian Mining Federation, the former composed mainly of European employers and the latter of Indian employers. Besides, there is also the Indian Colliery Owners Association at Jharia.

ECONOMIC INTERPRETATION OF THE PHILOSOPHY OF WANTS

BY

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The philosophy of life in regard to wants consists of the teachings of two divergent schools of thinkers. The doctrines of these two schools differ not so much in regard to the final end of life as in regard to the means through which the end, whatever that may be, can best be achieved. Thus, happiness for one seems to lie in the suppression or control of wants while for the other it appears to consist in the gradual but continuous progress of wants towards a higher and higher plane of living. Since wants and their satisfaction play a predominant part in the science of economics, these philosophic doctrines are capable of economic treatment.

The aim of life, from economic point of view, consists in maximisation of satisfaction or minimisation of cost.¹ Since satisfaction can only be obtained by the removal of a want it appears that it is maximum when the number of wants is infinitely great and each want is capable of being entirely removed. But the conception of cost also rests on that of want, for cost consists in the existence or continuance of a want (in an unsatisfied state, of course).

It is important, therefore, to enquire whether it is more desirable for an individual to experience a particular want and then have it satisfied or not to experience it at all. At the first thought it seems that in certain cases it is better and in others worse to have a want that can be and is satisfied than not to have it at all. In other words, it seems that in some cases there results a net balance of agreeable feelings when a want is first experienced and then satisfied, while in other cases there accrues

¹ The statement, often made, that the aim is to secure maximum satisfaction at minimum cost is a mathematical nonsense. One can either maximise satisfaction out of a given cost or minimise cost of a given satisfaction.

a net balance of disagreeable feelings. The problem, however, is not so simple as it appears to be and a direct answer such as the above is difficult to justify.

At the very outset we must recognise the fact that since agreeable and disagreeable feelings last over a period of time the question before us necessitates the summation of feelings over a time interval. Thus, for instance, a want causes a painful sensation or feeling which lasts so long as it is not removed and, similarly, the process of removal of a want produces an agreeable feeling which continues till the want is entirely satisfied. It becomes, then, necessary somehow to sum up over a period of time the agreeable and disagreeable feelings and weigh them against each other in order to ascertain whether a net balance of pleasure or pain has been caused by the presence and then the removal of a want.

This difficulty is due to the fact that we are driven to the necessity of applying the principle of arithmetic to data which do not admit of such an application. It is arguable whether there is much sense in attempting to add together the intensities of feelings experienced at two different moments of time. Mathematically it is a possibility but psychologically there would perhaps be no meaning in the result that such a calculation would yield. For, feelings are but states of consciousness and the feelings of yesterday have no existence of their own in the present, in the sense in which material things have.²

It seems, therefore, that all that can be fruitfully investigated into is whether there is a positive or negative balance of agreeableness at any particular instant of time.

But the difficulty referred to above is not the only one. We are faced with another difficulty of a purely psychological nature, namely, whether the removal of a want merely fills the gap, as it were, or secures some additional benefit for the person concerned. At any rate, it has to be admitted that the removal of a want at least fills the gap, that is, it removes the disagreeable feeling occasioned by the presence of the want. If this be the only effect of the satisfaction of a want then, it would seem, the process of satisfaction secures no positive balance (though it does not cause a negative balance either) and that, therefore, the individual merely gets back, as it were, what he had lost. Even

² It is not meant to suggest, however, that the feelings of yesterday do not project themselves into the present or that the repercussions of the experiences of the past do not have a place in the present. But the projection of past feelings into the present always makes them manifest themselves as fresh feelings and it is enough if we take account of them all on any particular day—the present.

then the problem does not admit of an easy solution. For, the disagreeable or painful feeling is experienced at one time whereas the agreeable or pleasurable feeling is experienced at another. And the difficulty is further increased by the fact that a want might last for a shorter or longer period of time than that over which the process of its removal might extend.

However, it appears that one can safely maintain that if the removal of a want merely fills the gap, the individual who experiences a particular want and then has it satisfied is in a worse, at any rate not better, psychological position than the one who does not experience the want at all.

This statement is not likely to find ready acceptance at all hands. But it should be abundantly clear that the warrant for it lies in the assumption that the removal of a want merely fills the gap. Consider, for example, the case of a person who loses a ten-rupee note and then finds it back. He merely gets what he had lost and, leaving the other after effects of getting the lost money back (for that is the implication of the statement that merely the gap is filled), it can be said that there is nothing to set against the worry caused by the loss of money during the interval between losing the note and finding it again.

We have now to see what warrant exists for the assumption that the removal of a want merely fills the gap and does nothing else. Here we have to bring in the conceptions of what I have elsewhere called unconscious wants and co-existence of wants. It is probably a debatable point whether psychologically a person can be conceived to have two or more conscious wants at the same instant of time. Assuming, however, that it is possible for a person to have a number of wants at a time (or a small period of time, if we prefer to put it that way) it is not difficult to see how an act that is meant to remove one want can, and generally does, remove other wants besides. But this does not point to any fact that is germane to the problem in hand. It is, however, when we come to the consideration of unconscious wants that we find some aid to the solution of the problem confronting us here.

An unconscious want I have defined as one that has not entered the region of consciousness, so that, though the presentation of the object of the want would give satisfaction to the person, the existence of it is not accompanied by a painful or disagreeable feeling. It is a matter of commonsense that a person has a number of such dormant wants at all times. The process of removal of a conscious want often removes not only that want but partially or completely removes some other

conscious and unconscious wants as well.³ When unconscious wants are thus removed the person experiences some agreeable feeling. It follows from this consideration that the removal of a conscious want does not merely fill the gap, since it is generally likely also to remove some unconscious wants. There is, therefore, justification for the view that it is better to experience a particular want and have it removed than not to experience it at all.

It is, therefore, an appeal to the conception of unconscious wants that enables us to understand the problem and attempt its solution. A man has been said to be a bundle of wants; but it seems that what really needs to be emphasised is that he is a complex of unconscious wants. Human happiness depends in a large measure on the removal of all these unconscious wants—a process that generates a stream of agreeable feelings. To create a want and then to satisfy it is a policy that has very little to commend itself: but the advocate of such a policy would infuse strength and logic into his appeal if he could explain the fact that the real aim behind it all is to satisfy wants before they enter the region of consciousness.

The happiness or otherwise of an individual could probably be judged by the intensity and duration of agreeable and disagreeable feelings. But, as already indicated above, there is an important element of artificiality in all such calculations. However, the foregoing study enables us to make the following observations. That painful or uncomfortable feeling are due to the existence of wants that have entered the region of consciousness. That unconscious wants are not accompanied by any such feelings. That happiness or agreeable feeling is caused by the removal of wants whether conscious or unconscious, when the subject of the wants is conscious of the process of removal. That wants always exist, first, in their unconscious state before they are made conscious by various agencies. And, lastly, that the right policy therefore is to satisfy all unconscious wants in order to make a positive contribution to

³ The phenomenon of increasing utility that accompanies the consumption of a commodity in small units can easily be explained by invoking the assistance of unconscious wants. If the use of a commodity be a genuine case of consumption (not production) the increasing utilities can only be due to the presence of unconscious wants that are aroused into consciousness by the act of consumption.

It is the failure to recognise the rôle played by unconscious wants in the theory of consumption that is responsible for the treatment of such a case of increasing utility as an exception to the law of diminishing (marginal) utility.

welfare and to remove all conscious wants in order to prevent damage to welfare.

The doctrines then that preach control of wants seem to be valid only in so far as they postulate the impossibility of removing all or a major part of our conscious wants. But there seems to be no clear justification for such an assumption. As a matter of fact, each want generates forces that eventually satisfy not only that want but other unconscious wants as well.

If the foregoing theory is correct, then welfare consists not so much in controlling or suppressing wants as in satisfying them and that is because the act of removing wants accomplishes the pleasant task of removing so many unconscious wants. And it follows from this that anything that makes a conscious want more conscious decreases the sum-total of happiness. It is perhaps the dim realisation of this fact that has led philosophers to preach the value of activity that is not sustained by the hope of reward or result.⁴ The teachings of the Gita thus have an economic basis.

⁴ An activity that is sustained by the hope of result might be denounced on two grounds. In the first place, such activities are of the nature of *production* and therefore, occasion pain when the expectations on which they rest are disappointed. In the second place, being an act of production, such an activity has its disagreeable side—the cost aspect; whereas the activity that is not undertaken in the hope of reward neither stands to be “spoiled” by the disappointment of expectations nor has the cost element to reduce its enjoyment.

THE GROWTH OF POPULATION AND THE FACTORS OF DENSITY IN TRAVANCORE

BY

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The increase recorded during the period 1921—31, namely, 10·6 per cent in the population of India, has been viewed by many publicists with considerable uneasiness. Dr. J. H. Hutton, the Census Commissioner in his report on the 1931 census says that “this increase is from most points of view a cause for alarm rather than for satisfaction.” Mr. R. W. Brock, formerly Editor of the ‘Capital,’ remarked at a meeting of the East India Association in 1932, that ‘there has certainly not been any increase in India’s agricultural and industrial production in any way proportional to the increase of her population.’ But in Travancore we find the rate of increase in her population during the last decade to be more than double the corresponding rate of increase of the population of India. Hence a statistical study of the population growth and density factors in Travancore will be interesting as well as instructive. The paper is divided into two sections, the first dealing with the growth of population and the second with Density.

SECTION I.

One of the principal theories of population growth is that put forward by Raymond Pearl. This theory is based on the assumption that the absolute rate of growth of population is proportional to the magnitude of the population existing at that instant and the difference between the existing and the limiting populations. The law of growth postulated on these assumptions may be expressed by a mathematical equation and the curve representing this equation is called by Pearl a ‘logistic curve.’ In the initial stages the growth hardly differs sensibly from a logarithmic curve such that the constants cannot be determined with any precision. Hence it is not advisable to try to obtain the constants of the logistic until the population has reached numbers near the point of inflection. It is also possible that over a restricted period the logistic curve may not give an accurate

approximation to a recorded population. In Travancore the census counts are obtainable only for the last six decades. Moreover the population there has not reached the point of inflection. So the logistic curve will not give an adequate representation for the population growth in Travancore. Thus it is possible only to consider the growth rates from decade to decade. As Dr. Fisher¹ has pointed out, the error introduced to the growth rates calculated by the simple interest formula, becomes exceedingly great when the percentage increases during the successive decades are large. Hence it is better to take the relative growth rate which measures the rate of increase not only per unit of time but also per unit of population already obtained. Using the mathematical formula,

$$\frac{1}{p} \frac{dp}{dt} = \frac{d}{dt} (\log_e p),$$

it is seen that the true average value of the relative growth rate for a decade is obtained from the natural logarithms of the successive populations. These relative rates are multiplied by 100 and expressed as the percentage rate of increase per decade.

The results of the past six enumerations and the relative growth rates, for the state as well as for the urban and rural populations, brought about by them are indicated in the following table.

TABLE I

Year.	STATE.		URBAN.		RURAL.	
	Population in millions.	Relative growth rate per cent.	Population in millions.	Relative growth rate per cent.	Population in millions.	Relative growth rate per cent.
1881 ..	2'401	..	'1162	..	2'285	..
1891 ..	2'641	9'53	'0960	-19'09	2'545	10'78
1901 ..	2'952	11'13	'1838	64'93	2'768	8'40
1911 ..	3'429	14'96	'2121	14'30	3'217	15'01
1921 ..	4'083	17'48	'4126	66'55	3'670	13'20
1931 ..	5'096	22'15	'5518	29'08	4'544	21'37

The rates of increase calculated for the state show a progressive growth of the population since 1881. The increase which was 9'53 per cent during the first decade rose to 11'13 per cent in the next, to 14'96 per cent in the third, to 17'48 per

¹ See Statistical Methods for Research Workers by R. A. Fisher, 4th Edition, page 29.

cent in the fourth and to 22·15 per cent in the last decade. Thus hitherto the rates of increase for the state have steadily increased from decade to decade. The rates of increase for the urban and rural populations during the several intercensal periods have not, by any means, been uniform. A large proportion of the increase in urban population is due to the addition of new towns at different censuses. In view of the fact that the number of places treated as towns at one census differ from those at another census and that some of these places have been altered in their boundaries during some decade, the growth of the urban element cannot be correctly judged from a mere comparison of the recorded figures. Hence it is extremely difficult to estimate correctly the extent to which particular causes have contributed to variations within the limits under consideration.

The physical features of Travancore are such that it can be divided into three distinct Natural Divisions based mainly on the leading geographical and climatic features. They are the 'Low Land'—very fertile, the 'Mid Land'—less so and the 'High Land' where the staple crop is tapioca and where irrigation is not practised. We shall now consider the growth of population in these Natural Divisions.

TABLE II

Year.	LOW LAND.		MID LAND.		HIGH LAND.	
	Population in millions.	Relative growth rate per cent.	Population in millions.	Relative growth rate per cent.	Population in millions.	Relative growth rate per cent.
1881 ..	1'228	..	1'096	..	'0776	..
1891 ..	1'334	8'29	1'217	10'43	'0907	15'59
1901 ..	1'477	10'18	1'366	11'56	'1092	18'56
1911 ..	1'672	12'38	1'614	16'69	'1422	26'41
1921 ..	1'960	15'91	1'932	17'98	'1915	29'75
1931 ..	2'390	19'83	2'415	22'32	'2909	41'81

Hitherto the rates of increase were steadily increasing from decade to decade in all the Natural Divisions. In the Low Land the rates of increase are less than the corresponding rates for the State, for, there the population is most congested and there is not much room for expansion. There the struggle for life is very keen and naturally people move to the Mid Land and the High Land Divisions where the virgin waste lands afford lucrative occupation. In the Mid Land the rates are almost the same as for the State. In the High Land Division the growth rates during the several decades are considerably higher than the rates of

increase for the State and this is certainly due to immigration. The difference in the rates in the several Divisions has to be attributed to internal migration. In the High Land the extended cultivation of tea and rubber has drawn a large number of immigrants from the other two Divisions and from across the Ghats.

The three main religions in Travancore are Hinduism, Christianity and Islam. For purposes of estimating the relative growth of these religions it is necessary to take the Animists along with the Hindus, as no differentiation was made between them at the earlier censuses.

TABLE III

Year.	HINDUS.		CHRISTIANS.		MUSLIMS.	
	Population in millions.	Relative growth rate per cent.	Population in millions.	Relative growth rate per cent.	Population in millions.	Relative growth rate per cent.
1881 ..	1'756	..	4985	..	1469	..
1891 ..	1'933	9'60	5440	8'75	1640	10'98
1901 ..	2'064	6'56	6974	24'82	1906	15'04
1911 ..	2'298	10'73	9039	25'95	2266	17'31
1921 ..	2'611	12'78	1195	27'98	2757	19'62
1931 ..	3'138	18'38	1604	29'38	3533	24'80

The results of a comparison of the relative increases in the three main religions are very striking. It appears from the above table that the relative growth rates among Christians have been higher than those of the Hindus and also of the aggregate state population during the past several decades. In regard to the Muslims their rates of progress even though less than those of the Christians have been at each census higher than those of the Hindus and of the state population. It should be remembered that the variations in the relative growth rates of the Hindus and the Christians are not attributable solely to the frequent movement of the people away from Hinduism. Natural increment has contributed its share towards the observed fluctuations. The higher growth rates in the Christian population are due mainly to conversions and to some extent to their high fertility, particularly of the Syrian Christians. Conversions to Islam are very rare in Travancore, but the marriage customs and the economic conditions of the Muslims are such as are conducive to a high fertility and their rates of increase are, therefore, higher than those of the Hindus. Their fertility, however, is not so high as that of the Christians.

We shall now pass on to the conditions which influence the growth of population in Travancore. A variety of physical and social causes contribute to the growth of population. In the words of Mr. Baines:—"There is first the tropical climate with its accompaniment of a low standard of requirements in the way of food and clothing and an equality of temperature that admits of an out-door life to an extent that alone renders habitable the ordinary style of dwelling. There is then the extent of arable soil, most of which yields to a comparatively simple cultivation the amount of food that suffices for the wants of a family, whether of two or half a dozen members. Strongest of all is the religious sanction, or the social influence, that contains within itself all the vitality of the popular belief of the masses, and according to which the want of a male heir leads to difficulties as regards inheritance of property, as well as to the omission of the ceremonial observances of the utmost importance after death. There is, lastly, the stereotyped structure and want of elasticity inherent in the form of the Indian society, which retards to an indefinite degree the development of a standard of comfort in advance of that of the preceding generation, and has thus the effect of discouraging that foresight which, originating in the desire of rising in the social scale, has an enduring effect on the marriage relations of the class which has once acquired it."² The circumstances set forth above apply to Travancore where the wants of the large bulk of the people are few and their luxuries almost nil. There, food and clothing are at an irreducible minimum; garden cultivation is the main occupation and the members of the family living within the premises of their detached homesteads have to pursue no laborious or costly methods of cultivation to eke out their living; and lastly the religious sanction and the social influence alike operate as powerful stimuli to the propagation of the species. The physical and economic conditions of Travancore are more favourable to the growth of population than those obtaining in other parts of India. Such conditions naturally favour a high birth rate and a low death rate. With these we almost exhaust the factors that are at work towards an unrestricted increase of population in Travancore.

SECTION II.

Next we shall discuss the factors which affect density. The density of population may be defined as the quotient $\frac{\text{Population}}{\text{Total area}}$.

² The Bombay Census Report 1881, page 29.

It is a mere arithmetical expression and in a homogeneous region this calculation gives sufficiently representative results. A variety of factors contribute towards the congestion of population in particular areas. In a country like Travancore where the agricultural class predominates and where large manufacturing industries are comparatively unknown the factors that govern the density are chiefly rainfall, fertility of the soil, means of communication and the kind of crops cultivated. In Table IV, the density, the normal (*i.e.*, the decennial average) rainfall in inches, the percentage of total area under cultivation, and the percentage of the total area under food and money crops of the thirty taluks in the State are given.

TABLE IV

Density.	Rainfall.	Percentage of the total area under cultivation.	Percentage of the total area under food and money crops.
277	51'8	21'4	14'1
1487	40'1	79'3	46'9
900	62'7	52'6	31'2
1067	53'5	64'8	58'3
1177	73'7	66'6	62'7
2336	72'2	82'2	69'1
430	84'1	36'1	23'5
1317	77'0	72'0	65'7
1680	93'7	63'1	62'7
2161	90'6	84'8	84'1
1925	99'7	84'5	81'0
778	105'4	44'4	9'9
681	105'6	74'3	30'5
1497	116'2	73'4	51'7
1562	111'2	93'6	58'0
1533	118'4	82'8	47'2
159	128'3	16'0	15'7
237	114'5	26'5	25'7
371	56'2	33'5	11'6
840	116'0	62'8	41'9
1083	123'7	73'2	63'7
1746	115'6	76'3	75'7
1067	120'7	77'4	67'3
711	159'6	78'4	46'2
414	143'1	42'3	25'6
625	115'2	30'6	28'3
186	148'7	22'0	13'8
1625	126'4	86'3	76'9
89	120'8	19'1	'9
102	174'5	23'7	'2

The correlation coefficient between density and rainfall is found to be $-.235$

$$1 - r^2 = .9448$$

$$\sqrt{1 - r^2} = -.2418$$

$$r/\sqrt{1 - r^2} = -.2418$$

$$t = -1.279$$

P is therefore between .3 and .2 and thus the correlation is not significant.³ But it is generally assumed that rainfall regulates the extent of populational distribution in rural tracts. Wherever the rainfall is properly distributed and seasonal it fertilises the soil and fertility depends chiefly on a good water-supply. Thus it follows that rainfall favours fertility which in its turn favours density. Hence ordinarily there should be a good correlation between density and rainfall. But we have found in reality that there is no such correspondence. There are several reasons for this. The presence of forests in some taluks where rainfall is high but density is small and the natural fertility of the soil of some other taluks where reverse is the case, are causes for the above circumstance. Anyhow as far as Travancore is concerned rainfall seems to have very little influence on density.

The correlation coefficient between the density and the percentage of the total area under cultivation is $+.866$. The value of t when calculated is found to be 9.064 and so P is much less than .01. Hence this correlation is definitely significant and it readily follows that cultivation has a direct correspondence with density. The correlation coefficient between density and the percentage of the total area under food and money crops is found to be $+.880$. The value of t in this case is 9.804 and P is therefore much less than .01. Hence this correlation is also decidedly significant and since it being very high it naturally follows that variation in density corresponds almost exactly with the variation in the proportion of the area under food and money crops.

Next we shall construct forecasting formulae for density, for which the percentage of total area under cultivation and the percentage of the total area under food and money crops can be used.

Let

x_0 = density.

x_1 = percentage of the total area under cultivation.

x_2 = percentage of the total area under food and money crops.

³ See Statistical Methods for Research Workers by R. A. Fisher, 4th Edition, pages 172 and 188.

We have

$$r_{01} = +.866 \quad ; \quad \bar{x}_0 = 1002.1 \quad ; \quad s_0 = 638.1$$

$$r_{02} = +.880 \quad ; \quad \bar{x}_1 = 58.1 \quad ; \quad s_1 = 24.3$$

$$r_{12} = +.878 \quad ; \quad \bar{x}_2 = 43.4 \quad ; \quad s_2 = 25.0$$

Taking the first factor alone, *viz.*, the percentage of the total area under cultivation, the regression equation may be written in the form:—

$$x_0 - \bar{x}_0 = a_1(x_1 - \bar{x}_1)$$

where

$$a_1 = r_{01} \cdot \frac{s_0}{s_1} = 22.74$$

On simplification the equation becomes

$$x_0 = -319.19 + 22.74 x_1 \quad . \quad . \quad . \quad . \quad . \quad . \quad (1)$$

The scatter is given by $s_0 \sqrt{1 - r_{01}^2} = 319.1$

Taking the second factor alone, namely, the percentage of the total area under food and money crops, the regression equation may be written as

$$x_0 - \bar{x}_0 = a_2(\bar{x}_2 - \bar{x}_2)$$

in which

$$a_2 = r_{02} \cdot \frac{s_0}{s_2} = 22.46$$

On simplification the equation becomes

$$x_0 = 27.24 + 22.46 x_2 \quad . \quad . \quad . \quad . \quad . \quad . \quad (2)$$

The scatter is $s_0 \sqrt{1 - r_{02}^2} = 303.1$

Taking both the factors into consideration, the regression equation may be written in the following form:—

$$\bar{x}_0 - \bar{x}_0 = a_1(\bar{x}_1 - \bar{x}_1) + a_2(\bar{x}_2 - \bar{x}_2)$$

where

$$a_1 = \frac{r_{01} - r_{02} \cdot r_{12}}{1 - r_{12}^2} \cdot \frac{s_0}{s_1} = 10.71$$

$$a_2 = \frac{r_{02} - r_{01} \cdot r_{12}}{1 - r_{12}^2} \cdot \frac{s_0}{s_2} = 13.33$$

On simplification the regression equation becomes

$$x_0 = -198.77 + 10.71 x_1 + 13.33 x_2 \quad . \quad . \quad . \quad (3)$$

The Multiple correlation coefficient is given by

$$R_{0.12}^2 = \frac{r_{01}^2 + r_{02}^2 - 2 r_{01} \cdot r_{02} \cdot r_{12}}{1 - r_{12}^2} = .813$$

and the scatter is given by $s_0 \cdot \sqrt{1 - R_{0.12}^2} = 275.66$.

The values of the density calculated by the above three formulae together with the actual density are given in Table V. When the formula (1) is used the deviations exceed twice the scatter value 319.1 in three taluks. In the case of formula (2) the scatter value is only 303.1 and the deviations exceed twice the scatter value only in one taluk. But using the formula (3) it is found that the scatter is reduced to 275.66 and the deviations exceed twice the scatter only in one taluk, namely, Trivandrum. There, the calculated density is only 1603 whereas the actual density is 2336. Since the capital of the State is in that taluk, the density there depends on other factors also, besides the two we have used. Thus naturally the actual density there must be much higher than the calculated density. In many cases the deviations are much less than twice the scatter, which is least in this case. Hence it may be safely assumed that of all the three formulae we have considered, the third one gives the best approximation.

We have seen above the influence of some of the factors on density. But not any one of them without the coexistence of others can alone account for the density of a particular tract. All of these operate jointly and it is their combined effect that influences the distribution of the population. We cannot fix upon any one natural or physical feature as conditioning density.

In conclusion I wish to acknowledge my indebtedness to Mr. N. Sundara Rama Sastry, M.A., M.Sc., Lecturer in Statistics, Madras University, for his valuable suggestions in the preparation of this paper.

TABLE V

Actual density.	Calculated density from formula (1).	Deviation from the actual.	Calculated density from formula (2).	Deviation from the actual.	Calculated density from formula (3).	Deviation from the actual.
277	168	-109	344	+67	218	-59
1487	1484	-3	1080	-407	1276	-211
900	877	-23	728	-172	780	-120
1067	1155	+88	1336	+269	1272	+205
1177	1196	+19	1435	+258	1350	+173
2336	1550	-786	1579	-757	1603	-733
430	502	+72	555	+125	501	+71
1317	1318	+1	1503	+186	1448	+131
1680	1116	-564	1435	-245	1313	-367
2161	1609	-552	1916	-245	1830	-331
1925	1602	-323	1846	-79	1786	-139
778	691	-87	249	-529	409	-369
681	1370	+689	712	+31	1003	+322
1497	1350	-147	1188	-309	1277	-220
1562	1809	+247	1330	-232	1577	+15
1533	1564	+31	1087	-446	1317	-216
159	44	-115	380	+221	182	+23
237	284	+47	604	+367	427	+190
371	443	+72	288	-83	314	-57
840	1110	+270	968	+128	1032	+192
1083	1345	+262	1458	+375	1434	+351
1746	1415	-331	1727	-19	1627	-119
1067	1441	+374	1539	+472	1527	+460
711	1463	+752	1064	+353	1256	+545
414	643	+229	602	+188	595	+181
625	377	-248	663	+38	506	-119
186	181	-5	337	+151	221	+35
1625	1643	+18	1754	+129	1750	+125
89	114	+25	47	-42	17	-72
102	220	+118	32	-70	58	-44

REVIEWS OF BOOKS

REPORT ON AN ENQUIRY INTO WORKING CLASS. Family Budget in Bombay City, prepared by The Labour Office Secretariat, Bombay, Published by The Government Central Press, Bombay. Price As. 3.

The second enquiry into the family budgets of the working classes in Bombay City was conducted by the Labour Office between May, 1932 and June, 1933. One of the objects of this enquiry was to obtain a reliable basis for the revision of the Bombay working class cost of living index number which is published regularly every month in the *Labour Gazette*. A report based on the results of the enquiry has now been published.

The enquiry was conducted by the Lady Investigators of the Labour Office who filled in the schedules specially drawn up for the purpose by visiting the predominantly working class localities, namely, the E, F and G Wards of Bombay City. A sample of three in a hundred tenements in the selected localities was taken. In all 1,514 family budgets were collected out of which 1,469 were accepted for final tabulation. Of the total number of budgets accepted, 947 or 64·47 per cent related to workers employed in the cotton mill industry.

An analysis of the budgets by religion and caste reveals that over 90 per cent of the workers are Hindus and about 5 per cent Muhammadans. Among the Hindus, Marathas form the largest proportion of industrial workers. Next in importance are the backward (depressed) classes such as the Mahars, Chamars, Mochis, etc., who account for a little over 20 per cent. Over 60 per cent of the industrial force in Bombay hails from the Konkan. The Ratnagiri District in the Konkan supplies Bombay with half its industrial labour. The next region in importance is the Deccan, which accounts for 29 per cent.

Constitution of the Family.

A matter of both sociological and economic interest is the constitution of the family in view of the prevalence of the joint family system, especially among the Hindus. With a view to ascertaining, therefore, to what extent the bread winner of the family is called upon to support not only his wife and minor children, but other relatives, the families were analysed into two classes, namely, natural families and joint households. The classification shows that the joint family system is by no means universal among the working classes of Bombay City, only slightly over one-third of the families being joint households.

Composition of the Family.

The average number of persons residing with the family in the city comes to 3'70 consisting of 1'33 men, 1'26 women and 1'11 children under 14. In addition, 0'65 persons are dependent upon the family although they live away from the family.

Workers and Dependants.

Out of the 3'70 persons in the family, 1'53 are earners and 2'17 dependants. Of the 1'53 earners, 1'19 are men and 0'34 are women. The employment of children, especially in factories, has practically disappeared in Bombay City. Of the total number of families considered, 826 or 56'23 per cent contained one wage earner, 538 or 36'62 per cent two wage earners, 79 or 5'38 per cent three wage earners, 21 or 1'43 per cent four wage earners and five or 0'34 per cent five wage earners. Of the 1,754 male earners covered by the enquiry, the bulk of them (71'15 per cent) were in the age groups 25 to 45. In the case of female wage earners, the age distribution is more even, falling within the groups 15 to 40. In 71'43 per cent of the natural families the only earner is the head of the family. In 23'73 per cent of the cases both the head of the family and his wife work. In the remaining cases the earners are either sons or daughters while, very rarely, the man has more than one wife whom he sends to work. While, however, in the case of natural families, in the majority of cases the head is the only earner, in joint families the story is somewhat different. In only 31 per cent of the cases is the head of the family the only earner. In nearly 28 per cent of the cases the head of the family and another adult male, usually his brother, are earners. In a considerable proportion of cases or about 16 per cent the two workers are the head of the family and an adult female. In 9 per cent of the cases both the head of the family and the wife go to work. In the remaining cases two or more males or females are also earners.

Income of the Family.

Over 62 per cent of the families fall within the income groups Rs. 30 to Rs. 60. The average monthly income of the family comes to slightly over Rs. 50. An analysis of the monthly income shows that of the income of Rs. 50-1-7, Rs. 39-13-6 is the contribution of men, Rs. 4-13-7 the contribution of women, Re. 0-0-2 of children and Rs. 5-6-4 come from other sources. Of the additional income, over 90 per cent is from boarders and lodgers.

Expenditure of the Family.

The average monthly expenditure of the family is Rs. 45-15-9. Except in the income groups "below Rs. 30" and "Rs. 30 to Rs. 40" the income is in excess of the expenditure and in the income group "Rs. 90 and over" the surplus left at the end of the month is about 22'5 per cent of the monthly income. It is important to remember that this was the position at the time of the enquiry and the wage-cuts which have taken place since then, especially in the cotton mill industry, may have tended either to affect the monthly surplus or lower the standard of living. The following table shows the actual and percentage distribution of expenditure on the

various groups of commodities and services which comprise a family budget:

Groups.			Average monthly expenditure.			Percentage to total.
			Rs.	a.	p.	
Food	21	6 10	46'60
Fuel and lighting	3	4 4	7'11
Clothing, footwear, etc.	3	9 0	7'75
Bedding and household necessities	0	1 0	0'13
House rent	5	14 3	12'81
Miscellaneous	11	12 4	25'60
				45	15 9	100'00

The average monthly income of the family of a cotton mill worker is slightly higher than the average monthly income of all workers, being Rs. 52-8-11. The average monthly expenditure of a cotton mill worker's family is also slightly higher than that of all workers, being Rs. 47-4-11.

Housing.

Of the 1,469 families whose budgets were collected, 1,085 or nearly 74 per cent were found to be living in one room tenements and 373 or 25 per cent in two room tenements. Of those living in one room tenements, in no fewer than 145 cases the tenement was shared between two families. More than half of the tenements belong to private landlords. Over 50 per cent of the families are required to pay a rent of between Rs. 5 and Rs. 8 per month. Taking all incomes, the percentage expenditure on house rent per month comes to 12'81 of the total expenditure. In the lowest income group, about 17 per cent of the expenditure is incurred on house rent, while in the highest income group, this percentage is 10'16. The average floor space per person comes to 31'26 square feet. In 995 or 74'48 per cent of cases, the average floor space available per person is 29'34 square feet and in 331 or 24'77 per cent of cases it is 35'82 square feet only.

Indebtedness.

74'74 per cent of the total number of families are indebted, the average indebtedness per indebted family being about Rs. 175 and the average for all families being about Rs. 130. Considered in relation to the monthly income, the average family owes 2'6 times its monthly income and the indebted family $3\frac{1}{2}$ times as much. In nearly 27 per cent of the cases the main cause of the indebtedness of the family was unemployment. This high percentage was no doubt due to the fact that during the period covered by the enquiry there was considerable dislocation of trade and industry owing to communal riots, trade depression and industrial unrest. Of the average debt of Rs. 130 per month, about Rs. 25 were borrowed

because the individual was unemployed. In nearly 23 per cent of the cases indebtedness was attributed to expenditure incurred on marriages. The average indebtedness on this account comes to about Rs. 48. In 12 per cent of the cases, the family incurred a debt to meet expenditure during sickness and for this cause it was indebted to the extent of nearly Rs. 13. The total indebtedness of the families (1,469) considered was nearly two lakhs of rupees. The rate of interest charged varied from $18\frac{3}{4}$ per cent to 150 per cent, the most common rate reported being 75 per cent per annum. The security furnished for loans was "personal security" in the majority of cases.

B. G. B.

"CRISES AND CYCLES," by Wilhelm Ropke, Ph.D., publishers William Hodge & Co., Ltd., pp. 224, 10/6 net.

This book unlike others on the same topic makes exceptionally easy reading. This is partly due to the lucid and vigorous style of the author. But it is also due to the way in which he has dealt with his subject-matter. Anyone seeking for an original contribution to the theory of economic depressions will be disappointed. Nor will they find in it the masses of statistics and the mathematical treatment found in other works on the same topic. In justice to the author, it ought to be mentioned that his "ambitions went towards a well reasoned synthesis rather than towards bold originality." To a very great extent he has realised his ambition, for it would be hard to find a work on the subject of equal size which can be recommended both to the economics student as well as the general reader as one containing the pith of the matter.

Of the five chapters of the work, Chapter II distinguishes the characteristics of seasonal and secular fluctuations from those of the trade cycle proper. The next chapter is historical giving descriptions of trade cycles from early capitalist times, but mainly of those of the nineteenth century. This chapter suffers from the inevitable restrictions of space to which the author seems to have subjected himself. Chapter IV deals with the causes of crises and cycles, and in addition to a résumé of old theories of over-production, under-consumption and the effect of business psychology in causing cycles, contains references to much matter of more recent origin, such as the theories of Keynes and von Hayek which owe their evolution to the great world depression from which we have just emerged. In the last chapter dealing with trade cycle policy, the appropriateness of the various remedies for correcting depressions and reducing cyclical fluctuations is discussed. Here the author's thought has been evidently influenced by the lessons of the recent depression.

To many perhaps, not the least stimulating part of the book will be found in the introductory chapter, in which the author enters an impassioned defence of the competitive capitalistic system so characteristic of nineteenth century Liberalism. That the prestige of this system in the public mind has suffered as a result of the last depression is admitted. But that there is any reason to consider the capitalist system as containing within itself the seeds of its own destruction, is stoutly denied. In so doing, the author is sometimes led away to deny certain tendencies of

modern capitalism, such as the drift towards monopolies. The popular conception in regard to this he describes as "nothing short of a myth." It would have been better to admit the tendency towards monopoly, and to have pointed out that not all monopolies had injurious results on the public, while those that had could be controlled by the State. Most economists will however agree with him that the general distrust of the mechanism of the capitalistic system is unjustified. This distrust is purely the result of the length, severity and extent of the recent depression. But it is not commonly realised that these characteristics of the world depression are due to the aggravation of the features of the normal trade cycle by forces, mainly political in origin, which have hindered the automatic functioning of the economic mechanism. In the vivid words of the author, the severity and length of the depression which started in 1929, far from being due solely to any inherent defect of the economic mechanism, is probably due as much to "sand being liberally thrown into it." The innumerable quotas, tariffs, clearing agreements and attempts at bilateral balanced trade, bear ample witness to the justice of this statement. Nor are many of the internal activities of states, whether conducted under the name of autarky, corporativism or socialism, less obstructive to the smooth and efficient functioning of the capitalist economic system. Herr Ropke however does not explicitly condemn autarkical or corporative systems, perhaps because these, unlike socialism, do not pretend to be able to erect an economic structure, which will be able to function without competition and the profit motive. It would appear however,—unless he claims that the qualities of honesty, fair-mindedness and continuity may be expected to function among the nationals of a State while absent in international economic dealings,—that the reasons he adduces towards the impossibility of a planned world economy, are almost equally valid against planned economy within many an extensive state with a large population. We cannot do better than to conclude with a statement of these reasons in the author's own words: "It is obvious that a planned world economy is equivalent to a dense network of commercial treaties dealing with the minutiae of international economic relations. It is, therefore, absolutely dependent for its functioning on an atmosphere of honesty, fairness and continuity which has been a concomitant of the Liberal epoch and which is now slowly dying with it."

E. H. S.

"TENDENCIES IN RECENT ECONOMIC THOUGHT," by Prof. Brij Narain, The Delhi University Publications No. 5, University of Delhi, pp. 210.

This book contains the ten lectures delivered by Prof. Brij Narain at Delhi University in connection with the Sir Kikabhai Premchand Readership. The subject of the lectures has a living interest for all students of Economic science. Apart from the process of rejection, modification and extension of certain economic theories which has gone on in the Science for years, changes in approach, method and objective of thinkers have been no less striking. Writers of the history of the development of economic thought have had to group thinkers into different classes in accordance with the peculiarities of their methods, outlook and what the Germans call *weltanschauung*. Economists have their characteristic ideals

which have powerfully influenced their treatment of theories and problems. That a German author who has dealt with the kind of changes referred to above, (Hans Honegger: *Volkswirtschaftliche Systeme der Gegenwart*), has had to describe systems of thought as Neoliberalism, Neomercantilism, Neosocialism and Neoromantic, etc., is eloquent in this connection. Recent trend of economic thought in Fascist Germany is strikingly characteristic. In view of these developments which cannot but be of tremendous importance to all who have to deal with Economics in one capacity or another, Prof. Brij Narain's lectures ought to make a wide appeal. He has explored the very extensive field of thought with an eye to the main currents and has performed a difficult task with remarkable insight and clearness and independence of judgment.

The lectures start with the peculiarities of Indian thought and justice has been very properly done to the work of Indian economists whose writings are often supposed and represented to be coloured with politics. The Indian economist wisely concerns himself with the realities of life as he finds it around him and deals with practical problems which confront the nation. Economists in other countries consciously or unconsciously do the same. The second lecture is devoted to the exposition of the American trend, particularly behaviour institutionalism. Next we have a discussion of the theory of value and in that connection we have an elaborate account of the viewpoints of several thinkers from Marshall to Schumpeter. Theories of rent and interest and of the value of money follow. Spann's Universalism and Cassel's Pricing process are then explained. At the close of the discussion of the conflicting theories of and concepts about value, Prof. Brij Narain is tempted to compare the different schools of thought to *Maths* and their leaders to *Mahants*. Fortunately he does not despair of general economic principles being evolved out of the prevailing chaos. The monistic tendency of economic thought, that is, the tendency to discover a unified explanation of economic phenomena, either in the utility or the pricing process theory, being disposed of, the lecturer turns to collectivism and to the change from individualism and free competition to State intervention and monopoly. Italian Fascism, German National Socialism and America's New Deal are discussed in turn and the conclusion is drawn that whatever shape economic organisation may take in different countries, "the capitalist system based on the free play of self-regarding motives is dead" and that "the world is moving towards Collectivism." The last two lectures are devoted to "the present position of the theory of socialism" and "the capitalist spirit and religion." The theories of Karl Marx are subjected to a critical examination and the causes of the rapid spread of socialism are investigated. Socialism, Prof. Brij Narain says, is inevitable and desirable though Marx's theories and anticipations may be wrong; and he observes:—"Socialism is not only not irreconcilable with marginal utility but finds in this theory its source and chief cause of strength." In the last lecture he goes on to observe; "The socialist ideal is the ideal of renunciation by all for the good of all. Socialism is compatible with the highest idealism of Hinduism and Islam. What it is not compatible with is religion which identifies self-interest with the service of God, with property and privilege, and with exploitation. Is this the meaning of religion? Is such religion worth preserving?" The peculiar feature of the lectures under review is that we have in them not only a bare summary of economic thought but

an attempt at their evaluation by Prof. Brij Narain, who is always clear, concise and thought-provoking. One may not agree with him on many points, but the book will be read with interest and profit as it brings one into touch with what is going on in the world of economic thought.

V. G. K.

LECTURES ON THE CONSEQUENCES OF POST-WAR PRICE CHANGES, by K. T. Shah, pp. 251, published by Delhi University.

Professor K. T. Shah who was for many years at the University of Bombay as Professor of Economics is well known to the Indian Economic world as a gentleman of very pronounced views on certain matters and in this book which brings together his lectures at the University of Delhi in 1934. Professor Shah does not disappoint his readers about his convictions.

The book under review is divided into ten sections, and sections two to eight refer to the history of the period after the war to the period of depression, and Professor Shah gives attention to the attempts at reconstruction and rationalisation during these years, but he is at his best when he goes to the development of his pet appreciation of the Russian experiment and economic nationalism. The first lecture is a short introduction to the scheme of lectures of the Professor.

The following statement of the author is interesting (p. 49):

'The theory of prices founded on the doctrine of marginal utility is true if at all in a society wherein there is absolute freedom of competition, wherein there is no foreign trade, wherein no changes take place in demand whether qualitative or quantitative, physical or psychological, wherein production is carried on under conditions of absolutely constant costs, without improvements and innovations without political manipulation or economic regulation. This does not exist anywhere; and so we need not consider the theory any further.'

But the reader will agree with Mr. Shah when in page 59 he says

'a permanent and simple determination of the price-level can only be, when we make a combined attack on both the production and consumption of wealth as also on the means devised for its measurement and valuation.'

Again the real question is, How one should proceed about it, and who would do it? It is all easy to say that

'if the root evil of our economic system is to be solved, the remedy lies in wholesale and radical reconstruction of the entire social system to replace the insane individualism of to-day with a more rational, more productive, more just, and healthy social life.'

It is not perhaps the duty of the scientific economist to attempt to be a prophet. He would be on surer ground if he confines himself to a study of history.

Professor Shah's indictment of the Government of India about their exchange policy is well-merited. Says the Professor (p. 100) :

"The export trade of India in post war years collapsed *directly* because of the policy of unnaturally high exchange, and the imports grew particularly from Britain, which needed to dump off its war surplus stock or required a direct stimulus to her reconstructed normal industry. While the pound was one-half its pre-war value, the rupee was made to stand at 150% of the pre-war level. In the period from 1919—24, whatever impetus Indian industry received as a result of the war was dissipated, and new difficulties were placed in the way with the result that prices in India never rose to the level they rose in Britain or other European countries, and their collapse came sooner."

Professor Shah correctly puts his finger on the evils of Rationalisation in *particular* industries (p. 126) :

"Except in a properly planned national economy where all changes in the aggregate industrial organization of the community are thought out in advance, and all constructive rationalisation is applied simultaneously and sympathetically, the economies considered and carried out for each industry separately must inevitably result in social disadvantages."

In his chapter on America, Mr. Shah appears to quote with approval the big challenge of President Roosevelt—the N. R. A. This was supposed to give the President powers to set up machinery for 'a great co-operative movement throughout all industry to obtain wide re-employment, to *shorten* the work week, to pay a decent wage for the shortened week, and to prevent unfair competition and disastrous overproduction.' But if Mr. Shah reads what an American writer with his (Shah's) sympathies writes of the administration of the N. R. A. it may be that Mr. Shah may ponder over the matter further.

Anna Rochester in *Rulers of America*, pp. 294-5 says:

'President Roosevelt's primary purpose throughout has been the restoration of profits to the capitalist class. To accomplish this he has carried monopoly capitalism into a further stage of its development.' Combination for maintaining prices and limiting production was openly encouraged under the N. R. A. codes says the writer.

A further criticism may also very well make us pause. The same writers says in p. 298:

'Under the guise of public works to relieve unemployment Roosevelt put over measures of direct and indirect military preparedness. Up to July, 35, about 430,000,000 of public works money had been transferred to army and navy uses.'

Again in page 128, the author has the following:

'The advisory Board within the N. R. A. was made up of 7 magnates and included at one time or another Alfred Sloan Jr. of General Motors, Ltd., Walter Teagle of Standard Oil, Gerard

Swope of General Electric, and Edward Staettinius Jr. a chairman of the finance committee of the U. S. Steel corporation served for six months as the liaison officer between the N. R. Board and the Industrial advisory Board in 33.'

This obviously cannot be the new social order of which Professor Shah may be dreaming!

The chapter on the Russian Experiment is a very interesting one. Mr. Shah goes into hysterics over the Revolution and says p. 207:

'Soviet Society seeks to transform the capitalist world into a socialised, communist, classless and equal unit with motives of common good in place of the incessant search for individual gain. A new scale of values has been created and a new outlook on life and its purpose a new philosophy of living and working has been developed.'

There is no doubt that Russia has challenged the world in its methods of organization, but it is yet difficult to say how long this experiment will last. One cannot help feeling that the whole thing is unstable, and if it is stable it will only be in the degree that capitalism gets fulfilled in the state as a creature of sectional interests getting power without a check against vagaries. An intolerable tyranny!

Professor Shah's observations on Economic Nationalism are of topical interest. 'The one essential condition of the successful working out of such a system of intensive nationalism, is that a country must be sufficiently large and populous, sufficiently endowed by nature in the matter of the richness of the soil, equableness of the climate, wealth of mineral resources, and the presence of skilled intelligence as to be able to live of her own resources. In his view the countries like India, China, or Russia are just those which may be justified in adopting any such policy of exclusiveness to tide over the lag in normal development. But will other nations allow?

It is also interesting to read what Prof. Shah has to say on the question of reconstruction as an insurance against present-day evils. Says he (p. 248): We must have

"the principle of planning of the *entire socio-economic mechanism of the world*, with a view to the fullest possible development of Mother Nature, in the shape of material resources and human skill. To achieve this we must substitute the ideal of common service and mutual co-operation for the present day individual greed and profit seeking, we must abolish private property and discontinue the principle of inheritance by children from their parents of material wealth. We must discard our idea of the individual sovereign state. The State must go the way of all flesh." Professor Shah would also have the conscription of labour.

The concluding paragraph of the last chapter is almost a rhapsody characteristic of the author's many utterances from time to time, but evidently exhibiting the largeness of his heart. The whole thing indicates how much of a dreamer Mr. Shah is and how little he cares to face facts

with a view to achieve at least one step in economic progress. Philosophic idealism is one thing, practical realisation is another and Professor Shah appears more as the evangel of a New Order with a missionary zeal than as a cold critic of the real facts and problems of life around us. We trust he may be able to give us at a future date some help in *actually* working out towards the ideal which appears for the moment at any rate almost an impossible dream.

Professor Shah's appendices to Chapters 3 and 7 are of use to the student of economics and the lectures as a whole are a thought-provoking study.

S. V. AYYAR.

DYNAMICS OF POPULATION, by Frank Lorimer and Frederick Osborne. published by Messrs. MacMillan & Co., London, pp. 460. Price 15s. net.

This is a very valuable piece of research on a subject of very considerable interest not only to the economist, but in a larger degree to the large body of educated men and women in the world who would be able to take an intelligent interest in the trends of population growth and the many problems arising therefrom.

Part I of the book deals with the Population trends of American groups, Part II, with the measurable characteristics of the different groups, Part III, deals with the differential reproduction of the groups and their influence on character. The last part deals with the causes and control of population trends.

The book which runs through nearly 450 pages contains an amount of very useful information and the authors must be congratulated on their scientific approach to a very difficult question. They have benefited by the amount of material available in many directions and have brought to their task a mind and an aptitude that does them credit in bringing to the notice of a wider circle of readers the intricacies of a problem which the more one attempts to study the more one is impelled to study deeper.

Intensive studies have led the authors to the conclusion that 'there are marked differences between occupational groups in their intellectual-cultural development measured by intelligence tests.' 'The relatively high frequency of persons of unusual ability in the upper social groups and the relatively high proportion of mental defectives of persons with very inferior mental development in the lower social groups' is one of the striking results indicated by the studies.

Another conclusion arrived at by the authors is of great significance. They say:

'A negative association between fertility and cultural-intellectual levels is manifest among regional groups, among social groups, and among families within broad social groups. But this negative association between fertility and cultural level in the population of the U. S. reveals a powerful force that is working

against our most cherished ideals and that threatens to defeat the aims of the whole education movement. If this force remains unchecked its eventual political and social repercussions may be tremendous.' (P. 200.)

The authors have attempted to give us very interesting information about the influence of contraceptive methods on fertility. In p. 258 we have the following:

'Natural limitation of fecundity appears responsible for 40% of all reduction in fertility below a four-child level, due chiefly to its importance in causing childlessness. Less than 50% of total reduction in fertility below the four-child level could be attributed to contraceptive practices.'

Further on we have:

'For the whole series of studies, it appears that 45.3% of the white women and 25.7% of the Negro women had made some attempt, other than abstinence from sexual intercourse, to control conception.'

Again,

'The proportion of well-to-do wives who have used contraceptive methods before their first pregnancy is surprisingly high (67%). It appears that the use of contraceptives eliminated nearly three-fourths of the pregnancies that would otherwise have occurred. (P. 275.)

The authors have also given attention to the question of fertility among college women—a question of importance for India where the girls show increasing desire to continue at school. In page 322, we read: 'There is nevertheless, a large difference in fertility between men who are college graduates and women who are college graduates. Relatively low marriage frequencies are reported as characteristic of college women as a class. The percentage of college women who never marry ranges in reliable studies at between 50 to 75%.'

The conclusions reached by the authors are of great interest. They say:

'The population of the United States as a whole is rapidly tending to become a stationary population. It is impossible to make any reliable long term pronouncement about the future total population of the U. S. Some groups are tending to rapidly replace other groups in our national life. Since these different groups play different rôles in a more or less balanced economic system and have different cultural traditions, and in some cases have different hereditary characteristics, the sort of population changes that are taking place carry large consequences for the future life of the nation.'

- (2) The most serious economic aspect of present population trends in the U. S. is the accumulation of surplus population in

agricultural areas with limited natural resources. This tends to create a serious imbalance in the whole economic structure. It tends to prevent a rise in levels of living including levels of education and health, in areas where the lowest general levels of living are now found.

- (3) From the point of view of hereditary capacities the results obtained from a few studies which yielded properly controlled data agree in indicating that from one-third to one-half of the variations usually found among occupational classes in average levels of cultural-intellectual development are due to deviations in hereditary capacities. The negative correlation between fertility and social status involves a gradual decline in average hereditary capacity for intellectual development. Such a tendency if continued for many generations would result in a serious lowering of capacity for cultural-intellectual progress by the American people.

'Each new generation of Americans,' say the authors, 'is tending to be disproportionately recruited from areas with low standards of living and inferior educational resources. The constant stream of migrants to urban areas from inferior stock is working to counteract the educational efforts now being made in American cities. Such a finding suggests doubts about the validity of the doctrine that each state has a right to determine its own educational and economic standards and that the nation as a whole has no responsibility for such conditions.' We can make a present of this idea to the thinkers of the world who would forget the world in their desire to exalt the nation.

The reviewer would echo the statement of the authors that 'there is a tremendous need for more extensive and systematic investigation of population in its dynamic aspects with reference not only to the consequences of population trends but also the social conditions which determine these trends.' There is no doubt that the analysis of population changes in relation to their social effects and their causes and control constitute a very important and not well explored field.

We can draw the attention of those enthusiasts in India who glibly advocate birth control methods indiscriminately to the following weighty observations of the two American authors:

- 'We have seen that in the cities among the most privileged groups and among the large middle classes there has been a strong drift towards patterns of family living that are incompatible with permanent family replacement. This must involve a widespread preference for families with three, four, five, or more children. Emphasis will have to be placed on values of family life, on conditions which guarantee a larger measure of economic security especially to young couples during the early reproductive years. Social conditions which affect reproduction might be modified in a number of ways so that changes would be more in line with conscious social objectives.'

If the authors Messrs. Lorimer and Osborne have not given the world an exact science of population growth, they have done something which is as valuable. They have shown with remarkable patience and ability what a sober analysis under proper conditions can give the student of social institutions. The quest is more interesting than the result itself—at any rate full of information.

There was a Population Conference called at Lucknow in January of this year (1936) by certain persons interested in the question of population, but the public are yet to know how the research activities of this Conference are proceeding. But any student of the subject in India who is really interested in a proper study of the subject cannot do better than study the very useful book under review and start on the work in a spirit of humility and scientific precision instead of overloading investigations by obsessions or academic ambitions. How very much one would wish that private endowments for scientific research had become as popular in India as the benefactions have been in America.

Messrs. MacMillan ought to be congratulated on the excellent get-up of the book and the price of 15 shillings is a very modest price for the mine of information which the able authors have tried to present to the readers with so much care and precision.

S. V. AYYAR

MONETARY REVIEW—League of Nations: Money and Banking 1935-36, Vol. I, Geneva, 1936.

COMMERCIAL BANKS—League of Nations: Money and Banking, 1935-36, Vol. II, Geneva, 1936.

In the *Monetary Review*, an attempt is made to analyse some of the interrelationships between monetary changes in the general economic situation in a number of countries. In the companion volume, *Commercial Banks*, a detailed account of the recent monetary and banking developments in forty-eight countries is given. Both the volumes, however, should be read together and in conjunction with the latest editions of studies on production, trade, balances of payments and public finance, which are annual publications of the League of Nations: *World Production and Prices, 1925—34*; *Review of World Trade, 1934*; *Balances of Payments, 1934*; and *Public Finance, 1928—35*. They will undoubtedly provide the factual background for conclusions in regard to monetary, financial and fiscal policies and help to dispel a good deal of hazy thinking based on mere *a priori* theorising.

In the analysis presented in the first of the two volumes, attention is mainly directed to the experience of representative countries. The main distinction is drawn between countries where monetary expansion had occurred and those where contraction had continued. Within the first group, a further distinction is drawn between countries such as the United Kingdom, where expansion had resulted mainly from currency and banking policy, and those such as the United States of America, Sweden and

Norway, where deficit financing and public works were predominant. The dominant key of expansion has indeed been the series of depreciations and devaluations, with the accompanying realignments of currencies (especially within the Sterling Area). The *Review* makes the following pronouncement upon expansionism: "It must be recorded, as a matter of historical fact, that in those few countries, which did not either depreciate their currency or use the protection afforded by exchange control to pursue an expansionist monetary policy, no considerable measure of economic development had taken place by the end of 1935."

B. P. ADARKAR

NINETEENTH SESSION OF THE INTERNATIONAL LABOUR CONFERENCE (reprinted from the *International Labour Review*, Vol. XXXII, No. 3, September, 1935), published by the International Labour Office, Geneva. Price 1s. or 25 cents.

This Session sat from the 4th to the 25th June, 1935, fifty-two States having participated. Delegates numbered 159 and advisors 249—in all making 408. For the first time, Afghanistan, the United States of America, Ecuador and the Union of Soviet Socialist Republics attended the Conference. The questions discussed were

- (1) maintenance of rights in the course of acquisition and acquired rights under invalidity, old age and widows and orphans;
- (2) employment of women on underground works in mines of all kinds;
- (3) unemployment among young persons;
- (4) recruiting of labour in colonies and other territories with analogous labour conditions;
- (5) holidays with pay;
- (6) reduction of hours of work with special reference to
 - (a) public works undertaken or subsidised by Governments,
 - (b) iron and steel,
 - (c) building and contracting,
 - (d) glass bottle manufacture and
 - (e) coal mines; and
- (7) partial revision of hours of work (coal mines).

2. The Conference laid down that minimum age for employment should be fifteen, and young persons over 15 should be compelled to attend whole time—receiving general education until employment was found. Emphasis was laid on universal elementary education. For unemployed persons between 18 and 25 vocational education was recommended. Employment centres were advocated for. It was opined that working

hours should be considerably less than forty hours a week. It was also agreed that Governments should arrange for the mutual transfer of student unemployed. On June 5, 1935, a demonstration was made by unemployed young persons before the session.

3. The Report refers to the further steps towards universality achieved by the Conference and the ideal of an international organisation for the study and control of labour conditions is indeed noble. But, while one looks round and sees what is happening actually, and how far international organisations and committees have succeeded in helping matters, one cannot but feel utterly disappointed. The Report itself refers to a large number of incomplete delegations, the reasons for such having been excessive cost, absence of industrial organisations and absence of industrial undertakings. It is really a matter for great disappointment that in 1935, an august body like the International Labour Conference should have repeated the gross mistake of thinking that labour problems exist only in industrial undertakings. Anyone who has studied human life first-hand must admit that the greatest abuses and injustices prevail in agricultural areas, and while all must admit that the handling of agricultural labour is very hard, the ignoring of the problem can by no means be condoned. The procedure of the Conference is laborious and tends to result in longwinded committees and drafts and amendments. One cannot say that labourers in the world are having better conditions of work and pay in 1936 than in 1900, and what is required is local study and public opinion and legislation, and more than all this, loyal administration of laws and rules. The International Labour Conference has nothing to do with these things, and the best that could be expected is academic discussion of correlated subjects. We have hundreds of universities which ought to do this kind of work, and it is matter for consideration as to whether the huge sums being spent on this Conference are worth it or not.

S. KESAVA IYENGAR

AGRICULTURAL MARKETING IN AGRA DISTRICT, by H. L. Puxley, published by Longmans, Green and Co., Ltd., 1936, pp. 85. Price Rs. 2.

This is Memorandum No. 2 of the St. John's College, Agra, Research Department. It is based on work done during the year 1934 in village Barhan and neighbouring naglas, Tehsil Itmadpur, District Agra, and in the mandis of Agra, Hathras and Itmadpur. The report gives an idea of how the agriculturists in the village dispose of their produce. It also gives an outline of the existing mandi organisation, and suggests ways to improve it.

The investigation reveals that most of the produce finds its way to the mandis through *beoparies*. The author observes: "There seems, therefore, to be no reason why the services of the *beopari*, the most superfluous of all the links in the chain of marketing middlemen, should not be dispensed with by any cultivator *who has sufficient saleable produce to fill at least one bullock cart.*" He anticipates the familiar objection that many cultivators have not enough produce to make the trip worth while

by remarking "the obvious solution lies in elementary co-operation." We agree. But the drive in the villages is lacking, and no agency has yet come forward to provide it. If a co-operative sale society of the approved type is sought to be organised by Government Inspectors and Supervisors, it has not much of a chance of success as these people care more for the form than the spirit. They never aim at awakening the co-operative spirit, what they aim at is a group of *punches* and a batch of registers and then stop dead at that. For the regeneration of rural India, Nicholson's dictum "Find Raffeisen" still holds good. And so long as each village will not have succeeded in finding Him, the village problem would remain unsolved.

We congratulate the Research Department of the St. John's College, Agra, on undertaking these instructive village studies.

B. G. B.

EARLY LAND REVENUE SYSTEM IN BENGAL AND BIHAR, Vol. I, 1765 to 1772, by D. N. Banerjee, published by Longmans, Green & Co., Ltd., 1936, pp. V, 228. Price Rs. 5.

In this volume the author has described the land revenue system which the East India Company gradually built up in Bengal and Bihar during the first seven years of its acquisition of the Diwani (1765 to 1772). During those years the Company in its ignorance of the customs and institutions of the country tried various experiments with a view to evolving such a system of land revenue administration as would increase its revenues derived from land and at the same time prevent the oppression of the ryot. Many of those experiments naturally failed to achieve these two rather incompatible objects that their authors had in view. But the author has clearly shown that although subordinate officers of the Company here and there were often guilty of acts of indiscretion, and even of oppression on the ryot, the Court of Directors in London and the superior servants of the Company who constituted the Council and the Select Committee at Fort William, were, on the whole, as much anxious to protect the ryot as to increase the revenues from land.

The book is based on original records and bears the stamp of exhaustive research. As such its appeal is to advanced students of economic history rather than to ordinary college students.

B. G. B.

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Part IV

THE ADMINISTRATION OF INCOME-TAX IN INDIA

BY

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The Income-tax in India has, so far, not proved to be as elastic a source of revenue as it is in other countries. Direct taxation on income is unpopular among the Indian trading and professional classes, and moreover the task of accurate assessment which is essential for a high graduated rate of income-tax has always presented great difficulties in the peculiar conditions of India. The law has recently been modernised and an efficient administrative machinery for the assessment and collection of the tax has been organised.

There has been no decrease in the rate of income-tax and supertax after the War, which still stand at as high a level as they have ever stood in India. The tax is one which, at any rate, for some years to come, can hardly be raised to meet emergencies. With a view to place the Indian Income-tax on a more scientific basis it is necessary to improve the machinery for its assessment and collection as well as the basis and structure of the system. Attention may therefore be drawn here primarily to the necessary improvements in the administration of income-tax.

1. Some Assessment Anomalies.

The Income-tax Report 1932-33 as compared with the results of 1930-31 discloses certain interesting points. What with an increase in rate and a surcharge of 25 per cent the income-tax demand went up by about 25 per cent while the supertax demand went down by 25 per cent. This seems to indicate some drastic change in the incidence of the tax and a reference to further tables shows that while the taxed income of companies went down from 42 to 24 crores and of registered firms from $7\frac{1}{2}$ to 5 crores, the income of Hindu undivided family and other income excluding salaries, interest and so on, which means the income of the small assessee, has actually been held to have gone up during the two years. The number of individuals paying supertax has increased from 1,477 to 2,677 and of unregistered firms has increased from 228 to 258 while the number of companies has gone down from 892 to 625. The meaning of these figures is plain. Companies submit audited accounts which virtually have to be accepted and their figures may be taken to tell the truth. How is it that the results from other sources are so different? It is not that the net has been cast wider and there are more assessees, for, neglecting the below 2,000 classes, the number of assessees has gone down from 318,000 to 298,000. We believe it is due to the growing severity of the administration of the Act.

If we take the Bengal Income-tax figures for 1933-34, the outstanding fact in the report is that it is the assessee who earns between 3,500 and 7,500 rupees per annum who is the backbone of the province and so large is his preponderance that in spite of the fact that higher classes of assessees pay higher rates, he is the backbone of the tax-paying classes. Whether we deal with salaried persons, Hindu undivided families, unregistered firms, associations of individuals or just individuals earning their own living, in each case the maximum of earnings goes to the grade earning Rs. 5,000 to Rs. 7,500 per annum. As between individuals and salaried people, this does not seem to call for much comment. The chances of earning in a salaried post are set off against the chances in independent careers and one would expect some sort of correspondence in the ordinary average person, but that the income of unregistered firms which may have 2 or 3 partners or associations of individuals which may consist of 30 or 40 persons should be greater in this grade than in any other seems a subject very fit for further investigation. Still more remarkable is the fact that the Hindu undivided family, which must also have several members, crowds round this income level. Very noticeable too is the way in which the total income

of all assesseees in the Rs. 40,000 to Rs. 50,000 class is much less than the total income either in the Rs. 30,000 to Rs. 40,000 class or the class above Rs. 50,000. Exactly the same thing happens in the Rs. 12,500 to Rs. 15,000 class. The total income here is appreciably less than in the Rs. 10,000 to 12,500 class or the 15,000 to Rs. 20,000 class. And this holds not for the assesseees as a whole, but for each class of assessee separately. The total incomes in each item are so much alike as to say that they are identical. The earnings of the Rs. 1,000 to Rs. 1,500 class are high, whether salaried men, Hindu undivided families, unregistered firms, associations of individuals or individuals. These figures fall for 3 out of 5 from that grade, and for all five from Rs. 1,500 to Rs. 2,000 grade until the Rs. 3,000 to Rs. 3,500 grade is reached. Thereupon all classes fall until the Rs. 12,500 to Rs. 15,000 level comes when they all go up again in the Rs. 15,000 to Rs. 20,000 grade only to fall unanimously till Rs. 30,000 is reached and then all unanimously up to Rs. 40,000 and down to Rs. 50,000. What is the explanation for this remarkable state of affairs? It is worth investigation.

As regards the insurance question, tax rebates on account of insurance premiums amount to $4\frac{1}{2}$ lakhs. Return IV on page 8 shows when these rebates are claimed and in none of the ordinary grades does the maximum rebate claimed exceed more than about 3 per cent against the 16 per cent allowed by Government. There is probably about 25 lakhs of unused concessions going to waste every year which is enough to explain quite a lot of persuasiveness and ingenuity on the part of Insurance Companies.

Out of 19,000 returns filled by companies and non-salaried assesseees, only 2,598 were accepted as correct, and out of 28,000 sets of accounts produced only 17,500 were adequate enough to base an assessment on them. These are eloquent figures to bear testimony to the restraint of the department in refraining from any prosecutions at all.

On the other hand, assessments under Section 23 (4) seem to be 5 per cent on the average and there is no doubt that such assessments are heavily penal. This is a matter in which the Central Board counsels moderation in its Manual and a friendly and helping hand on the part of the Income-tax officers would avoid most of these cases. The section brings odium on the Department. If its officers would explain to assesseees the consequences of their failure to make returns, this would be avoided.

The official belief that for every assessee there are three who escape is probably very near the mark. The real solution for this is the growth of public opinion. The assessee is far from

realising that he is paying for those who escape. While there is insufficient effort to rope in new tax-payers, there is far too much effort to make existing assesseees pay as much as or more than before, and while admitting all the difficulties, we make no apologies for suggesting that a thorough reorganisation is required.

It is a commonplace among Europeans that the tax bears heavily upon them in particular because they do not escape. Europeans are interested mainly in salaries and dividends and so these figures belie the popular theory. The man who is suffering now is the Indian assessee who is on the list. This is not to say that there are not enough on the list but those who are, are obviously being squeezed. To turn to another point. As regards the return showing the number of assesseees, in Bengal there are 8,700 assesseees in the 2,000 to 2,500 grade and 5,000 in the 2,500 to 3,000 grade and these figures are somewhat incredible. On the average income the tax can under certain circumstances be more severe in India than in England, and it is to the interest of all of us that every possible assessee should be enrolled.

Applications to the High Court are few. This is also an indication of the difficulty of getting to the Court because so many matters in dispute are held to be questions of fact rather than of law, and once an Income-tax Officer comes to the conclusion on a question of fact, his superiors have the greatest reluctance in differing from him. In the criminal law administration, consultations between a Magistrate and the authority to whom an appeal will go are unknown. In the Income-tax Department they are the rule rather than the exception and confidential notes which the assessee has no opportunity of seeing but which bind the Income-tax Officer completely are very common. This is a most objectionable practice and it is because of this, the demand for an independent appellate authority is gaining strength.

2. Income-tax Figures.

The figures furnished by the Department are fairly full. We should, however, like to see statements added showing province by province the number of assessments under Section 23(4) and the number of cases in which the use of Section 13 is invoked. These are the sections which cause most injustice and in the case of illiterate assesseees, in particular, there is a danger of the tax becoming a tax on turnover and there are no arguments for imposing a tax on turnover under the guise of a tax on profits.

Finally, what is needed is some way of curing the Income-tax Officers of their ineradicable optimism as to the ease with which profits accrue. It is not really possible in any ordinary line of competitive business in India to make more than 10 to 20 per cent net profit on capital. As soon as there are signs of more being likely, the business becomes overcrowded. This elementary fact finds no recognition in the Department.

3. Income-tax and the Provinces.

Recently in answer to a question in the Council of State regarding the amount of Income-tax collected in the Provinces, the Government submitted a statement and the figures as published in the daily papers are as under:—

Madras	..	..	..	1,67,98,748 lakhs.
Bombay	..	..	..	4,62,23,157 „
Bengal	..	...	..	4,39,80,242 „
United Provinces	..	..	..	1,16,00,377 „
Punjab	..	..	..	86,90,484 „
Burma	..	..	..	1,74,16,122 „
Bihar and Orissa	..	..	..	68,71,745 „
C. P. & Berar	..	..	..	38,53,422 „
Assam	..	..	..	19,39,754 „
N.-W. Frontier Province	..	..	..	11,73,980 „

These figures for 1932-33 seem to be of special interest for more than one reason, for they show considerable changes in comparison with the figures of previous years which are given below:—

	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.
Madras ..	130	137	128	134	131	134	132
Bombay ..	404	315	321	324	318	369	343
Bengal ..	555	504	570	488	615	618	557
U. P. ..	79	80	74	83	90	90	88

The first obvious fact is that the figures of the year 1932-33 reveal how much more seriously hit Bengal industries have been than have been the industries of other provinces.

These figures of Income-tax collections are interesting for another reason, *viz.*, the problem of the division of the proceeds of the tax on income between the Provinces and the Central Government that was examined by the Percy Committee. In its recommendations, that Committee suggested a method of distribution which if it were ever accepted, would inflict upon Bengal an even greater injustice than the Meston Settlement. Therefore a scheme of distribution (of the Income-tax proceeds) which pays due regard to wide fluctuation in industrial profits would prove much fairer to Bengal and other provinces which are principally affected by industrial profits.

4. Super-tax.

Super-tax is a taxation anomaly. In framing future taxation Government might take the business community into their confidence in order to avoid some of the present glaring anomalies. By reason of the levying of a super-tax on the profits of Companies, as an additional income-tax but on a different basis, they got the ludicrous position, in the case of a company which has Preference Shares on which the dividends exceed half a lakh of rupees, that the taxation which is borne by the holders of the Ordinary Shares of that company is so arranged that the smaller the rate of dividend earned on the ordinary shares the higher is the rate of taxation. This situation is to be found in the case of Spencer and Co., Ltd., Madras. A much fairer way of taxing companies would be to incorporate the super-tax in the income-tax, and so also should be incorporated any additional levies for Provincial Revenues. This might mean a uniform higher rate of income-tax on companies and no super-tax on companies, but all shareholders, whether Preference or Ordinary, would bear their fair quota of a company's taxation and the Ordinary Shareholders would not be penalised as they are now.

The Income-tax Act is badly drafted. To give one instance, the Bihar and Orissa Income-tax Department (June 1933) attempted to seize property belonging to a limited company of which the assessee is the Manager, and the Commissioner also thought of a body warrant to extract payment of a sum which he ought to know cannot be paid and which he does know ought never to have been asked for. This is all due to the bad drafting of the Income-tax Act, but it caused no particular trouble when the scale of taxation was small. Now that the scale is appallingly high, the Act is a menace to every one, and unless the Income-tax Department is able to administer it so that injustices of this sort do not occur, the Department will become violently unpopular.

It is often said that the Indian Penal Code drafted by the great Macaulay casts its net so wide that even the most upright man commits breaches of it everyday. Nevertheless it stands almost unaltered, and the reason is that it is interpreted reasonably. The Income-tax Department may be invited to draw the obvious moral. With the *non-possumus* attitude of the Central Board no one can have much sympathy. They are no doubt technically right, but we do not want administrators who worry over much about technicalities. Let us have a little humanity. The real root of the trouble, however, is the Commissioner of Income-tax. He has ample powers of redress and he ought to use them properly.

5. Bad Debts.

Another Income-tax rule has been added recently to the growing list designed to separate one big hole into two small ones. Take the question of *bad debts*. This is largely a matter of commercial practice, but as the result of an upcountry decision good commercial precedent has now little or nothing to do with the matter, for it has become a rule of the Department that bad debts are not allowed as a deduction against profits unless an attempt has been made to recover them by legal proceedings. It is an ordinary sound commonsense maxim that it is no good throwing good money after bad and no one in his senses will attempt to recover money by expensive legal proceedings when he knows the debtor cannot pay. But unless he is prepared to do so, he cannot hope for any Income-tax relief and the result is that the Department takes very large sums which are in no way profits but rather losses.

About three years ago, an Income-tax Bill was introduced by Sir Hari Singh Gour in the Legislative Assembly aiming at providing for the association of non-officials with Income-tax Officers in deciding the cases of assesseees. But such a machinery may be very cumbrous and expensive and a simple way was to provide for a non-official Court of Appeal both on matters of fact and matters of law which would be made much more accessible than the High Courts to which only matters of law can be referred. The processes of application to the High Court are cumbersome and expensive and far too dependent on the opinions of the Commissioners of Income-tax.

The growing stringency in tax-collecting circles has been such and the need for some sort of independent control of the taxing authorities has been such that it is rapidly becoming one of the foremost problems of reform. The real trouble lies in the

fact that the taxing authorities are expected to interpret the law not only judicially but also with an eye to the main chance, namely, revenue. The cry for separation of executive and judicial functions has long been insistent, but that affected only the public which came within the scope of the criminal law. Every one earning more than Rs. 1,000 per year comes within the ambit of the Income-tax law which has become by far the most important law in India, and without expressing any opinion about the separation of the executive and judicial functions of the ordinary sort, we believe that there is the greatest need for it in this Department.

As the Act is badly drafted and complicated, attempts to remove big loopholes of escape usually result in a set of smaller holes. Each Provincial High Court is putting out rulings which are often contradictory and which have to be followed or discarded by the Department according to their sense of fitness of things. If there are discrepancies, they usually follow the ruling which is against the assessee, rather than the one in his favour. Of course the Income-tax Department encounters very great difficulties over the many and varied systems of book-keeping in this country, and the work both of examiners and Income-tax Officers has reached a particularly high level of technical excellence. They know their Act and rulings and show surprising ability in ferreting out relevant information from the most complicated accounts.

The Income-tax Officer, however, having got his facts before him, has to apply the law to them judicially and from his rulings there is an appeal to the Assistant Commissioner, and under certain circumstances, to the Commissioner. Both these appeals should be conducted judicially and we have no hesitation in saying that the very frequent consultations of the Assistant Commissioners by the Income-tax Officers, before they pass orders, rob the assessee of all hope of an independent appeal and is entirely contrary to the ordinary British system of administration of law.

What would happen if a Munsif consulted a District Judge before passing judgment in a Civil Suit? What would the High Court say? Yet exactly this happens every day in Income-tax circles and we do not think the authorities will deny it. Any complicated case is taken by the Income-tax Officer to the Assistant Commissioner, with the result that if there is an appeal, the latter has already made up his mind. Practically it is no appeal at all. The disadvantage is particularly felt when an assessee succeeds in getting a case referred back for reassessment and the greatest difficulty comes when an assessee has paid his tax and

hopes for a refund. We do not blame the Income-tax Officer, because he is an executive officer and his primary duty is to see that taxes are collected, and if possible, revenue is increased. Nor is the Assistant Commissioner in a very different position though his higher status should make him better able to assert his opinions and work judicially when that is expected of him. The defect lies with the whole system. The Income-tax officer knows that his work is judged largely by his success in taxing. If he agrees to accept the assessee's contentions and there is no appeal, he knows that there is every chance of his records coming under the scrutiny of the Assistant Commissioner or the Commissioner and unless the Income-tax officer is prepared to show that his assessment is correct by means of a very voluminous note based often on very complicated accounts and facts, the man higher up, who is himself under the necessity of seeing that revenue comes in, must always wonder whether his staff are getting all they should. This is no reflection on the staff. It is the result of the system.

The time is come when it is necessary to have from the Assistant Commissioner grade upwards two parallel organisations, one for taxing and the other for hearing appeals. If the Income-tax officer is in doubt as to the proper interpretation of the Act, he may refer to the Commissioner, but let the assessee, who is aggrieved by an order, feel that he has a genuine appeal to make to an officer who has no concern with the state of the revenue and is charged only with the duty of interpreting the law without favour in exactly the same way as the civil courts are charged. Only by this means is it possible to secure fair play. Let the *Judicial* Assistant Commissioner, as we call him, be free for all dependence on the Executive Assistant Commissioner or the Central Board of Revenue. In the end, the successful administration of the Income-tax depends on the support of the public, and a reform such as this would go far to enlist that support.

THE PLANNING OF THE INCOME-TAX IN INDIA

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The administration of the income-tax has given rise to considerable dissatisfaction throughout India in recent years. A direct tax is always unpopular but the income-tax is most so—not merely in India but in every other country of the world—due to the peculiar features of this taxation. In recent years, there has been a large increase of income-tax payers in India. This is due, firstly, to the recent lowering of the exemption limit; secondly, to the greater industrial development and prosperity of the business classes and lastly, to the efficiency of the Income-tax Department. Their eagle-eye now sweeps the country from end to end and, no wonder, the income-tax figures are mounting up rapidly. The increase in the number of taxpayers must, however, be weighted by price, population and business activity indices before it can be used as an index of national prosperity.

The Government of India is badly in need of more money so that the new federal government and provincial autonomy both might have a fair chance of success. As Burke said, “the revenue of the State is the State.” The whole future of the constitutional reform in India will depend on adequate finances.

The income-tax is one of the most important sources of revenue to the Government of India—yielding about Rs. 17 crores per annum. The problem before us is twofold. On the one hand, there is the urgent need of enlarging our income-tax revenue. On the other hand, there is the more urgent need of improving its administration as quickly as possible. We have to correct its glaring inequalities, eliminate all causes of public irritation, prevent all risks of evasion and lastly, remove such features of it as injure the larger economic interests of the country.

Leakage of Revenue.

The revenue can be increased either by increasing the rates or by stopping the leakage. An increase of rates is not possible because already it is too high. Any further increase will bring

the income-tax under the law of diminishing returns. The burden of a tax must be relative to the wealth and prosperity of a country. We cannot forget that India is one of the poorest countries in the world. The *per capita* income in India is remarkably low as compared with some of the other countries of the world. Any further increase in the income-tax will therefore cause grave hardships throughout the country.

But our income-tax system suffers from the liability to considerable leakage and evasion. By double set of accounts and crediting of receipts in fictitious names, by under-valuation of stocks and concealment or under-statement of sales, by faked accounts and false totals, by imaginary figures of purchase and sale and by suppression of cash sales, by concealment of branch business and by fictitious partnerships—and a wife is the most convenient form of a bogus partner—a considerable amount of tax is evaded year after year. In addition to this wilful default, there is a considerable leakage due to defects in our income-tax law. If these leakages can be stopped, it will greatly increase our revenues. The cases where a leakage occurs are as follows:—

(1) All salaries, pensions, emoluments and leave allowances of employees in India paid by the Government, local bodies, corporations, companies or private firms and employers to their European servants resident abroad (e.g., in the U. K. or in the Colonies) escape income-tax and super-tax under Section 60. These incomes which accrue or arise in India are not liable to the Indian income-tax. There is absolutely no reason why such incomes should receive a preferential treatment. In no other country in the West is it possible to come across cases of such differential treatment as in India. The latest illustration comes from the U.S.A. In April last, President Roosevelt recommended a tax bill to the Congress in which the following taxes were proposed on foreign individuals and companies, *viz*:—10 per cent income-tax on income received by non-resident aliens from sources within the U.S.A., 22½ per cent on income derived from American sources by foreign corporations with branches in the U.S.A., 15 per cent on incomes received within the U.S.A. by foreign corporations without any American branches and lastly, 15 per cent on foreign banks and insurances companies. But in India, while we pay large sums under these heads, year after year, it is the United Kingdom and the Colonies who appropriate the tax on them. The people who receive these incomes do not contribute anything by way of income-tax to the Indian exchequer. All incomes accruing and arising in India should be roped in for

both income-tax and super-tax. If this is done, it will easily add to our revenues by more than a crore of rupees per annum. This is a big leakage which should be stopped at once.

(2) Interest on our sterling securities is not taxed on the ground that the right to receive such interest arises in the U. K. But the interest is paid out of the Indian revenues and there is clearly no justification for the exemption. The interest paid on Treasury Bills is taxed in the case of Indian holder through his return of income where it has to be stated in full. But such holdings in the hands of foreign banks or individuals appear to escape taxation in India altogether. There might have been some justification for this differential treatment in the past when foreign capital had to be coaxed into India by heavy guarantees and other concessions. But, at present, with capital so cheap all over the world and with the Indian capital market growing rapidly in strength and size, there is no justification for continuing this concession to sterling securities. Even if we withdraw such concessions, there would be no difficulty in satisfying our future capital needs. In the future issues of our sterling loans, the terms of issue might include a liability to Indian income-tax. If this is done, there can be no future grievance for the investor. With money so cheap, there can possibly be no risk. For the first time in history, the British Government raised a loan of £300 millions in December 1935 at the nominal rate of one per cent. Even at this rate, the loan was quickly and heavily over-subscribed.

(3) Incomes or profits earned or accrued outside India should be made liable to income-tax. At present, under Section 4, they are liable to tax only if they are received in or brought into India. This involves a huge leakage of revenue because the tax is easily evaded by keeping or utilising such incomes outside India. There are many who regularly pursue such a policy and thereby they are evading the tax for a long time. This is responsible for artificially starving the Indian money market and creating in it an uneconomic pleurisy of funds. Such incomes should be made liable to tax whether they are brought into India or not. It will increase our revenue considerably.

(4) Business transacted by foreigners in India escape the tax in several ways. Recently, some foreign concerns trading in India have hit upon a clever device to evade the Indian tax. These non-resident merchants have recently started creating their new Indian subsidiaries or counter-parts as independent limited concerns under the Indian Companies Act. The words "India

Ltd." are simply added after their names and, in law, they become new concerns. On paper, the foreign concerns sell their products to their Indian counter-parts at prices much higher than those charged elsewhere, so that, on paper, the Indian offices do not show the actual profits in their books. They thus escape a considerable portion of the tax. This is a veiled attempt to evade the payment of the legitimate tax. Further, agents of large foreign manufacturers evade the tax by calling themselves indentors and not agents. As agents, they would be liable to tax on the total profits earned by their principals in India. As indentors, they show limited profits in local offices against which they debit all their expenses which are really paid by their principals. If these leakages are stopped, they will very probably fetch the lost crore to a needy government at once.

(5) It is sometimes alleged that traders exporting Indian products abroad inflate their invoice prices unduly so as to minimise the profits that will appear in their books. This needs inquiry and, if it is proved, it must be checked in the interest of the taxpayer.

(6) Incomes of Ruling chiefs or Native States arising in British India—which now escape the tax altogether under Section 60—should be made liable to income-tax and super-tax. It is well-known that they make large investments in Government paper and other British Indian securities from which they derive large incomes. There is no reason why such incomes should escape the tax.

(7) The relief granted under Section 49 in the case of double taxation should be revised. Double taxation always involves a lot of hardship but before relief can be granted it is necessary to decide whether the relief is to be given to the double-taxed income or the double-taxed individual. In 1934-35, the law in India was amended whereby the maximum relief admissible in such cases was restricted to the lower of the two rates at which the tax was payable in the two countries. But this relief benefits only some British firms located in India and the U. K. They obtain large refunds—about a crore of rupees per annum—from the Indian Treasury as a result of this concession. With every increase in our rates of income-tax and super-tax in the future, the size of this refund will grow. This concession should be abolished in the interest of the Indian taxpayer. India gains little by the reciprocity by which the U. K. grants a similar relief to India under Section 27 of the British Finance Act. The British income enjoyed by Indians is very much smaller in size than the Indian income enjoyed by Englishmen. If this

concession is cancelled at both ends, India is likely to gain more than what she will lose. At present, the income relieved from double-taxation is largely Indian while the persons relieved are largely non-Indians.

(8) Agricultural incomes might be made liable to income-tax and super-tax. At present, it is completely exempted from both. Not only is agricultural income exempt from taxation but, what is more, it is not even taken into account in determining the rate of the tax on the non-agricultural income of the assessee. In India agricultural income constitutes the largest part of the national income and this income is not subject to income-tax at all. In the western countries land pays not merely the land tax but, in addition, it pays income-tax, death duty and local rates. In India it pays only the land revenue and local rates. The big landlords—specially in the permanently settled Zemindari areas—pay no income-tax on their huge agricultural incomes. Their land revenue was permanently fixed in 1793 and they have enjoyed the benefits of the permanent settlement for about 150 years at the expense of the rest of the community. In 1918, the Government proposed to amend the law so that agricultural income while remaining untaxed might be taken into calculation for fixing the rate of the tax on the non-agricultural incomes of the landlords. But the latter raised such a howl of protest that ultimately the proposal was rejected.¹ Thus, beyond the land revenue, these landlords pay no direct tax to the State and their total contribution to the State—as compared with their total incomes on the one hand and the contribution of the other classes on the other—is disproportionately small. In a recent case, where a money-lender was assessed to income-tax, the Privy Council held² that the fact that the recipient was a money-lender did not matter as the business of money-lending may bring an income which is exempt from income-tax on the ground that it is derived from agricultural land. “The exemption is conferred and conferred indelibly on a particular kind of income and it does not depend on the character of the recipient.” The Taxation Committee found (p. 212) that there was nothing in the history of the case to justify the continued exemption of this class of income from income-tax. Great difficulty is experienced in defining agricultural income and in drawing a line of demarcation between agricultural and non-agricultural incomes. For instance,

¹ *Vide* Indian Legislative Council Proceedings, 14th March, 1918.

² Commissioner of Income-Tax *vs* Kameshwar Singh (A. I. R., 1935, Privy Council 172).

the courts have held that sugar factories and tea companies are liable to income-tax on the non-agricultural portion of their incomes. Borderland cases always present serious difficulties. If the exemption is removed it will bring a large revenue to the Government, remove a glaring inequality in our system of taxation and enable the Government to give greater relief to poorer classes by a more equitable distribution of burdens. The Simon Commission estimated that about Rs. 5 crores of additional revenue might be raised if all agricultural income is subjected to income-tax. No doubt, there are certain serious difficulties in the way. The Taxation Committee discussed some of them and it is fruitless dealing with them over again now. But some of these difficulties are very much exaggerated. It would be quite possible to devise an equitable method of imposing such a tax. We might exclude the actual cultivator from its scope. We might provide an exemption limit in agricultural incomes much higher than the usual limit of Rs. 2000 in other cases. The agricultural limit might be fixed at, say, Rs. 5000 or even Rs. 6000 per annum. In the case of bigger incomes, the amount of land revenue paid may be deducted from the assessable income as a business expenditure. Further, in order to introduce it gradually we might deduct the exemption limit for the first ten or fifteen years from the total income in calculating the tax and its rate.

(9) Under the Indian law, legacies and other capital gains are exempted from income-tax or super-tax. In the Western countries such legacies are exempted because there they have the Inheritance and Death duty to cover them. We have no such taxation in India and hence the legacies and capital gains escape taxation in India.

Lines of Reform.

We now turn to the second part of the problem and consider some of the reforms that will greatly improve the Income-tax system in India. These reforms might be stated as below:—

(a) The Indian taxpayer is entitled on grounds of equity and justice to the system of family allowances for wife, children and dependants. This should be conceded in India as in the U. K. and the Colonies. A family connotes a much smaller unit in England than in India where the joint family system still prevails. The real difficulty lies in the fact that those who originally framed the Income-tax law in India neither knew nor appreciated the peculiar features and conditions of our social life. To our English rulers—generally ignorant of our social

system—a joint family meant little beyond an archaic social organisation and a family meant the husband and wife and their minor children. The other aged relatives and dependants faded out of the family group. The distant relations never count. In India, the family includes the old parents or a widowed mother or an aunt, a sister and minor brothers or nephews and a much larger number of minor children per couple than in England. The prohibition of widow re-marriage in India makes the number of dependants greater per family in India than in U. K. The struggle for existence is increasing daily and the cost of educating children and equipping them for life involves too much of a strain on the average householder. The head of the family in India has to bear much greater burden than the one in U. K. The average level of *per capita* income is also much higher in U. K. than in India. A family with, say, half a dozen children in India with a modest income of Rs. 2000 gets no exemption at all. Hence it is all the more necessary to provide for the system of allowances in India where the people are poorer and their burdens are heavier. If these abatements and allowances are given—at least to people whose incomes do not exceed, say, Rs. 10,000—it will remove a lot of undeserved hardship on large number of people. An abatement of Rs. 250 per annum for each dependant and each child will not be too high when we compare it with the English rate of £50 per child that is allowed in the U. K.

(b) The exemption allowance for life insurance, deferred annuities and provident fund which, at present, is one-sixth of the total income is too low. It should be raised to at least one-fourth so as to encourage more strongly habits of thrift in India. The people of India, through centuries of invasions, insecurity, civil disorder and misrule under the Moghul administration, had no opportunity of developing a telescopic faculty. This largely accounts for the poor growth of capital and the backward state of industrial development in India. Every facility and encouragement should be given, now, so as to develop habits of thrift in the people. It will lead to a greater growth of national capital in India which will ultimately react on national wealth and taxable capacity of the people.

(c) In India, there is no distinction between earned and unearned incomes for the purpose of income-tax. This is clearly inequitable. Both classes of income now pay at the same rate. It would be equitable to put the two classes of income on different rates of taxation—the unearned income paying a higher rate than the earned income. In some of the foreign countries the two

are treated differently. There are usually three ways of doing it, *viz.*:—

- (i) Relief is granted to earned incomes by deducting a fixed proportion from it before it is assessed. The relief is granted up to a certain limit (*e.g.*, U. K. Japan, Irish Free State); or
- (ii) Different rates of the tax are prescribed for earned and unearned incomes (*e.g.*, Australia, New Zealand); or
- (iii) A separate tax on the capital value of property is imposed in addition to income-tax (*e.g.*, Hungary, Bavaria).

In India, no distinction has been made so far because it was felt that it would discourage habits of investment and also check the industrial development of the country. Further, the size of the unearned income in India is not big enough to justify such revolutionary changes. But the absence of differentiation is so greatly unfair that it is time to make a real effort in the line. In course of time and with greater experience, the method will become more and more perfect. By discouraging investments in land it will promote greater industrial development in the country.

(d) The high level of income-tax should be reduced as far as possible in order to aid economic recovery. The income-tax in India is an imitation of its western model but we must not forget that economic conditions in India are so vastly different from those in the West—our poverty is so much greater and our economic life and prosperity so far below the Western levels—that any attempt to judge it by Western standards or any attempt to apply Western standards to the Indian system would be grossly unfair and might easily lead to disaster. India is a poor country and consequently the yield of income-tax must naturally be poor in India in comparison with the richer countries of the West. Our rates are unduly high when we compare them with our average standard of living and the *per capita* income in India. Our method of graduation is unjust in so far as it goes up by big jumps and jerks between certain grades of income. No doubt, Section 17 does provide some marginal relief but that does not cure the evils of taxation by irregular spasms and violent jerks. The graduation curve might be a little less steep for incomes up to, say, Rs. 20,000 beyond which it might go up more steeply. If Rs. 2,000 to Rs. 5,000 pay six pias, the next grade

(Rs. 5000 to Rs. 10,000) might pay eight in place of nine while Rs. 10,000 to Rs. 15,000 should pay ten and the next higher grade (Rs. 15,000 to Rs. 20,000) might pay an anna in the rupee. This will reduce hardships and allay irritation considerably. If the Government wants to increase its revenue, the real and effective remedy lies not in putting the rates up from time to time but in pursuing a vigorous policy of economic and industrial development so as to increase the wealth and taxable capacity of the people. It should do everything to promote a greater industrial development in the country but unfortunately some of the provisions of the income-tax law do not give the best encouragement to our struggling industries. We discuss them later on.

(e) The exemption limit was lowered from Rs. 2000 to Rs. 1,000 sometime back—yielding an additional revenue of Rs. 47 lakhs only. The roping in of the Rs. 1000 to Rs. 2000 class caused great hardship amongst a very large number of people in these days of acute economic depression. It is satisfactory to note that the limit was raised back to Rs. 2000 in the last budget (March 1936). This has no doubt relieved great hardship amongst the poorer classes. But this is not enough. We suggest that in the case of those living permanently in cities like Calcutta, Bombay etc., the exemption limit might be fixed at Rs. 2500 to make some allowance for the much higher cost of living in those places because it operates with undue severity on the poor middle classes. The tax-free minimum should also be allowed to be deducted from all incomes as a fixed and permanent abatement. At present, the individual whose income is slightly above the taxable minimum pays income-tax not on the excess but on his entire income.

(f) The surcharges on income-tax and super-tax—imposed some time back—should be removed entirely. They operate with great hardship and are impeding economic recovery. The sooner they are completely removed the better for the country. It is satisfactory to note that the Government is working steadily for it. The surcharges were reduced from one-fourth to one-sixth in 1935 and in March last (1936) they were reduced to one-twelfth of the original rate. We hope the Government will remove them completely as early as possible.

(g) Under the Act of 1918, the assessment was made on the average profits of 3 years. This automatically allowed for losses but this procedure was dropped in the Act of 1922. The present law does not permit the carrying forward of losses in business from one year against profits in subsequent years.

Section 24 only allows losses to be set off against profits within the same year. The acute economic depression in recent years has enormously increased losses and minimised profits. The law makes no allowance for bad debts which ought to be allowed under Section 10 in computing assessable business income as incidental to every business. It is the normal condition in every business. Whether a debt is a bad debt and when exactly it becomes bad are questions of fact and not of law. It should be determined—not by the assessee nor by the Income-tax officer but by an impartial tribunal upon a consideration of all relevant evidence in the case. The present law bars economic recovery by preventing the losses and profits from being set off beyond the limit of one year. It also acts as a great handicap on our trade and on our new and struggling industries. It is really a tax on the industrial development of India. It operates with great hardship and it is against all canons of equity and justice. The Taxation Committee accepted this claim in principle. The question has been raised several times by the Associated Chambers of Commerce and Sir George Schuster agreed in 1930 with the necessity of granting relief. In the U. K. the assessment was originally made on the average income of 3 years and so the profits and losses of the 3 years automatically adjusted themselves. In England, the law does not affirmatively state what losses may be deducted. A deduction cannot be allowed on account of losses not connected with or arising out of the trade or business. More than this, as the Lord Chancellor pointed out,³ it did not follow that if a loss is in any way connected with the trade it must always be allowed as a deduction, for it may be only remotely connected with it or it may be connected with something else as much as or even more than with the trade. Thus, losses arising wholly or exclusively out of expenditure laid out in the business can only be claimed as a deduction. The English law has recently been improved by extending the period from 3 to 6 years during which losses could be set off against profits. In America the period allowed is 2 years. The English system should be followed in India and the losses in the previous 6 years should be allowed to be carried forward and adjusted against subsequent profits. It will greatly help our new and infant industries and it will, in course of time, greatly change the wealth and taxable capacity of the people.

(h) The depreciation allowance, under Section 10, is unsatisfactory. The section provides for a depreciation allowance

³ Strong and Co. (Romsey), Ltd., *vs* Woodfield (5 T. C. 215).

on buildings, machinery, plant and furniture on their original costs. Conflicting rulings of different High Courts on the interpretation of the word "original" have greatly added to the confusion. In a recent case, the Privy Council has held⁴ that the cost to be allowed is the original cost to the person by whom the tax is payable. It is now high time to revise the depreciation list carefully. Higher depreciation allowance should be granted on machinery working double shift. Where machinery is working day and night, it is only fair to allow depreciation at proportionately higher rates. It need not be difficult to find satisfactory proof of the daily hours of work in a factory.

(i) Gratuities granted and *bona fide* charities made should be exempted from taxation.

(j) The women in India suffer from so many social and legal disabilities, their rights to property and their economic security are so poor that some concession to them in the matter of taxation would be both just and generous. We suggest that their personal income—especially from *Stridhan*—should either be exempted altogether or, if that is not found possible, the exemption limit should be put fairly high at, say, Rs. 5000.

(k) Refunds at present cannot be claimed under Section 50 beyond the period of one year. This is too short a period and it should be extended. As the Income-tax authorities themselves can go backwards up to 3 years, the period of refund should also be extended to at least 2—if not 3—years. Further, the long delays involved in settling claims to refund and granting them should be avoided by quicker work in the offices. If the refund is not settled or granted quickly, the Income-tax Department should be compelled to pay interest at 6 p. c. on the refund due.

(l) In the case of incomes from real property, as the income-tax is a charge on the net income, all losses in relation to the house properties should be deducted. This is not allowed at present. It is a real misery to be a landlord of houses if one has to deal with a particular class of tenants. In big cities like Calcutta and Bombay, the opportunities of defrauding the landlords are many and they are very freely used causing considerable losses to them. Most of these landlords are not very rich people—they are ordinary middle-class people struggling with poor and inadequate incomes in their lives. There should be liberal deductions to cover their losses without which it becomes really hard and unfair on them. Further, in urban areas, the

⁴ Commissioner of Income-Tax vs Buckingham and Carnatic Co. (Ltd.), (A. I. R., 1936, Privy Council 5).

assessment should be based not on the municipal valuation but on the basis of the rent actually received. Deductions should be allowed to cover legal expenses for the recovery of rent and local and municipal rates and taxes. Such rates and taxes are essentially payments for certain services—conservancy, water-supply, lighting, sanitation and other civic amenities without which an urban property will have no letting value at all. They definitely enhance the value of the property. Such charges—incurred solely for the purpose of the property—should be allowed. In the case of vacancies, the actual period of the vacancy should be allowed.

(m) Payment of super-tax by companies whose income exceeds Rs. 50,000 involves double taxation of the shareholders. They are, of course, allowed to deduct from their tax what the company has paid in income-tax on their dividends. But a similar deduction is not allowed in the case of super-tax and it thus ends in double taxation. The shareholders have to pay the tax irrespective of the fact whether they are within the income-tax limit or beyond it in the super-tax grade. This hardship should be removed.

(n) Sections 34 and 35 authorise the Income-Tax officer to reopen an assessment case of the previous year and to call for books and accounts. This section is regarded as a penal and detective section and it creates both hardship and ill-will. Though meant only to rectify minor cases of departmental mistake or oversight, it actually leads to great harassment to the assessees.

(o) The legal procedure of appeals also needs urgent improvement. It cannot be denied that there is a very strong feeling of discontent amongst the public against the methods of the Income-Tax Department. The harassment and hardship that the public is often put to are largely the result of very drastic and summary powers with which law has endowed the Income-Tax officers. In a case which came up recently⁵ before a Judge at Howrah, the Court remarked—"If this is realising income-tax, it is better for both the Government and the subjects that the entire system was overhauled radically." In 1934-35 Rs. 3·4 crores of additional income-tax revenue was realised by the coercive powers of the department—refusing to accept the returns made by the assessees. It came to about 32 p. c. of the actual revenue assessed.⁶ At present, the Income-Tax authority is the sole judge to determine taxable income. An appeal lies from the

⁵ *Vide* Report, *Amrita Bazar Patrika*, October 4, 1936.

⁶ *All-India Income Tax Report and Returns*, 1934-35.

Income-Tax Officer to the Assistant Commissioner and then to the Commissioner and their findings of fact are final. A reference to the High Court is allowed only on questions of law. The Income-tax authorities are thus their own judges in a case in which they are a party. As Sir B. N. Sarma pointed out in his minute of dissent to the Select Committee report in 1918—"The Act goes against the cardinal and fundamental principle that no one should be a judge of his own cause." It is the old old case for the separation of judicial and administrative functions now centred in the same hand. When a taxing authority enjoys such drastic and coercive powers, it is all the more necessary that the taxpayer should have a statutory right of appeal which will safeguard him against the over-zealous efficiency of the taxing authority. It would be only fair to allow an appeal to the District Judge. Appeals should be heard by a person or a body completely disinterested in and unconnected with the assessment or administration of income-tax. The appellate court should be an independent judicial tribunal and appeals before it should be allowed both on points of fact as well as of law. The findings of the fact by the Income-tax authorities should *not* be taken as final. Income-tax—after all—is a specialist's job and the Tribunal must be constituted accordingly so as to contain independent men with requisite technical knowledge, business experience and ability to hear such cases. The only objection to such a tribunal is that it would be rather costly. A tribunal consisting of experienced judges—possibly from the High Courts—will no doubt be costly but, it may be pointed out that at most 2—or possibly 3—such tribunals—operating as Circuit Courts—will provide for the needs of the whole country. It is not only necessary to do justice. It is equally necessary that the people should feel that justice has been done.

Lastly, there is the supreme necessity of introducing a human element in the administration of the income-tax. There are certain well-known principles which govern the administration of a taxing act in all parts of the world. A taxing act must be clear and unambiguous in language. The tax sought to be recovered must be imposed in words or terms which admit of no reasonable doubt. Words used in a taxing act must be interpreted in the ordinary sense unless it can be definitely shown that they have been used in a special or technical sense. Further, as the Privy Council pointed out⁷ it is neither safe nor desirable to

⁷ Gopal Saran vs Commissioner of Income-Tax (A. I. R., 1935, Privy Council 143).

interpret the Income-Tax Act of one country in the light of decisions on the Income-Tax legislation of another. Broadly speaking, a taxing statute should be construed liberally and *favourably to the subject*. The onus of proof will lie on the taxing authority to show if any income has escaped the tax or if it has been assessed at too low a rate. A taxing act should not, as a rule, be construed against the taxpayer.⁸ Fraud or the intention to evade payment cannot be presumed. It must be definitely established by cogent evidence. Mere suspicion cannot do duty for proof and the taxing authority must realise that its first and foremost duty is justice and that considerations of revenue—though certainly important—must come long after it.

⁸ *The Dock Company vs Browne* (36 R.R. 459).

INDIAN INCOME-TAX TAXATION OF INDIVIDUAL INCOMES

BY

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Introductory.

The income-tax, in its modern form, was looked upon as a temporary expedient to tide over a passing emergency at the beginning of the present century. But war and post-war finance made this form of taxation universal. The Indian income-tax can no longer be considered as a temporary financial expedient. Under the Government of India Act 1935, this is to be counted upon as one of the main sources of revenue to be administered by the Central Government. Though the present Income-tax Act was enacted in 1922, the administration of the tax in India has an unbroken history extending to over half a century.

As a source of revenue, a tax on incomes has attained rapid development in world finance during the last three decades. Income-tax is recognised in Britain 'as a loyal and well considered effort to accomplish that which the people desire and in a way which commands their sympathetic approval.'¹ In the realm of public finance, the tax is looked upon as fair and just in its operation, as income is represented to be one of the best all round first approximation of ability that we have. While agreeing with the view that income is the best available index of an individual's ability to contribute towards the maintenance of a State, it cannot be denied that the *total income* of any individual (like that of a company, a firm or a joint family) by itself cannot be taken as a fair measure of his ability to so contribute. As Clarence Heer puts it, 'Net income is not an objective fact. It is a theoretical concept concerning the exact content of which even theorists are not entirely agreed. For practical purposes it is necessary to devise a statutory formula which will yield a monetary expression of this theoretical concept on the basis of factual data supplied by the tax-payer.'²

¹ E. R. A. Seligman. *The Income-Tax* (1914), p. 218.

² The place of personal income-tax in a modern Income-tax system by Clarence Heer. *The Annals of the American Academy*, January 1936.

In judging the soundness of an income-tax, it is therefore necessary to include elaborate and clear provisions for deducting *taxable income* from the *total income* of individuals to be taxed under the Act. Detailed provisions governing computation of the incomes of individuals for assessment, under the Act, are as necessary as those governing the determination of the taxable incomes of firms, companies and other business undertakings. The drawing up of statements of assessable income on the basis of the final accounts like the trading and profit and loss accounts of business concerns is looked upon as the legitimate work of professional accountants. In the words of the Indian Taxation Enquiry Committee, 'A tax whose justification lies in its accurate adjustment to personal ability to pay can only be successful if it is so actually adjusted.' Without deductions and exemptions which attempt to bring about such an adjustment, a tax on personal incomes is more in the nature of a tax on the money value of the goods and services received by the person than a tax on the income of the person taxed.³ Such deductions and adjustments are provided for in the tax systems of most countries. The following tabular statement extracted from the Report by the League of Nations on Taxation of Foreign and National Enterprises relating to the United Kingdom reveals the nature of such deductions and adjustments.

' 1931-32—Ascertain first *total income*. Calculate tax at the standard rate (5 sh.) on total income.

Deduct tax at the standard rate (5 sh.) on *earned income allowance*.

Deduct tax at the standard rate (5 sh.) on *personal and other allowances*.

The balance will equal tax at the standard rate on *taxable income*.

Allow relief on £175, at one half the standard rate, leaving tax chargeable on £175, at 2 sh. 6d. (one-half of 5 sh.) and on the remainder of the taxable income at 5sh. (the standard rate). Deduct tax at the allowable rate on life insurance premiums and

³ 'A man's taxable capacity may be defined as that portion of his income which remains after providing for the maintenance of his own working efficiency, and of his family including such expenses as he may have to meet personally for the nurture and education of his children to the end that they may become efficient workers in their several avocations'—written memorandum by Dr. Gilbert Slater to the Indian Taxation Enquiry Committee, p. 16, Vol. II.

in respect of dominion income-tax relief. The balance will be the tax payable.⁴

Features of Indian Income-Tax.

The law relating to Indian income-tax in respect of basis of liability, computation, procedure, administration, etc., is contained in the Indian Income-tax Act (XI of 1922) as amended from time to time and the Government Trading Taxation Act (III of 1926). The rates of taxation are however regulated by the Annual Finance Acts. Subject to certain exemptions given either under the Act or by the Governor-General-in-Council under the powers given to him, the tax is payable on total income from whatever source it is derived, if it accrues or arises or is received in British India. The scope is wide and the Act is based on the principles of origin and residence. Any person whose annual total income from all sources does not exceed Rs. 2,000 enjoys total exemption from income-tax. He can claim refund of taxes paid or deducted at the source, on any portion of his income. Total income is defined to mean 'total amount of income, profits and gains from all sources to which this Act applies, computed in the manner laid down in Section 16.'⁵ These terms—income, profits and gains—are loosely used throughout the Act. The deductions allowed under each category of income, gain or profit, which together form total income, are detailed under each head of taxable income. The heads of taxable income are enumerated in the Act.⁶ No allowances from total income are given for a minimum of subsistence for wife, children or dependents, or for earned income. The only allowance of a personal nature is that given to certain provident and family pension funds recognised by Government and on account of insurance premia, subject to certain limitations. Certain sections in the Act are devoted to directions for deducing the taxable income for purposes of the Act, giving full details of items to be allowed and disallowed in

⁴ P. 173 of the Report. Alterations in rates and reliefs are made from time to time and embodied in the Annual Finance Acts.

⁵ Section 16 lays down that certain sums exempted from taxation be included in computing the total income of an assessee for purposes of the Act.

⁶ Section 6 of the Act. Income is divided into six classes :—

- (i) Salaries.
- (ii) Interest on securities.
- (iii) Property.
- (iv) Business.
- (v) Professional earnings.
- (vi) Other sources.

computing taxable income. These are generally confined to property incomes and business profits.

I confine my observations to two defects in the system, as revealed by the existing provisions, *viz.*,

1. absence of proper differentiation, and
2. absence of provisions governing abatements and personal allowances.

These two defects along with the defects in the Schedule of Rates of Assessment have in no small measure contributed to make the Indian Income-tax unscientific. The Indian Income-tax compares unfavourably with similar tax systems elsewhere.

Differentiation.

The fairness of taxing more lightly incomes from wages, salaries and professional services than the income or profits from business, investment or property is beyond question. This was not denied by the Indian Taxation Enquiry Committee, but they considered that the application of such differentiation to India appeared 'to be premature,' under the then existing conditions. In rejecting the need for such differentiation they observe: 'These considerations apply with much diminished force in India for the reasons, first, that there is no large class of *rentiers* depending on incomes from investments, and secondly, that, in so far as there is such a class, by far the greater part of its investments is in land, and so long as income from land escapes income-tax altogether, it would be invidious to impose a differential rate of tax on the relatively small balance of investment income that remains.'⁷ During the decade that has passed since they wrote, the country has gone through a period of increased business activity. The investment habit apparently has been growing and this is indicated by the increase in the number of companies floated year after year, the reported transactions on the Stock Exchange, the loans raised by Government and other semi-government institutions under easy terms within a short time, the success of the scheme for Post Office Cash Credit certificates, growth of urban areas and their improvement leading to increased house-building activity, etc. It is obvious that during the decade income other than earned income must have contributed its quota to the growth in the national income of the country. The following table⁸ shows the steady improvement in national income up till 1930 and even thereafter, despite the depression,

⁷ Indian Taxation Enquiry Committee Report, p. 197.

⁸ Poverty and Kindred Economic Problems in India by G. Findlay Shirras.

there has been brisk industrial activity in the country as is shown by the figures for sugar, iron and steel and cotton piecegoods between 1930—1936:

Year.	National Income (in Millions of Rs.)	INDEX NUMBERS (BASED ON 1921-1922).	
		Index of Business activity.	Paid-up Capital of Joint Stock Companies (index Nos.).
	Rs.		
1921-22	23,660	100	100
1922-23	30,380	106	111
1923-24	30,670	107	114
1924-25	33,250	116	119
1925-26	32,960	115	120
1926-27	33,830	118	119
1927-28	34,970	122	124
1928-29	35,260	123	125
1929-30	36,980	129	123

The conditions on which the Taxation Enquiry Committee rejected the principle of differentiation have lost their force. The situation has altered and now calls for differential rates of taxation according as income is earned or unearned, is derived from work or from investment. Both in the interest of equity and increased revenue, the introduction of the principle of differentiation can no longer be delayed.

Under the existing Act, investment incomes including incomes from property and gains and profits from business are clubbed with incomes from work for purposes of assessment. Further, refunds are allowed in respect of incomes received in the shape of dividends, interest on debentures, etc., in cases where they have been taxed at the maximum rate—a provision which is erroneous and which is criticised in the course of the evidence before the Indian Taxation Enquiry Committee.⁹ In recent years a large percentage of bonds and debentures issued by Government

⁹ The recipient of dividends ought to receive no remission from the income-tax, because of the fact that the company is already taxed—Written Memorandum by Sir Josiah Stamp, Vol. II, Indian Taxation Enquiry Report, p. 9.

and semi-Government institutions (held by the richer classes earning incomes from investments) carry with them an income-tax concession. It is difficult to justify such a concession when they are considered from the point of view of the taxation policy to be pursued by a state. In respect of incomes from property also, it is difficult to justify deduction of interest paid on loans obtained on the mortgage of such property, irrespective of the purpose of the loan. All such exemptions, especially in the alleged absence of differentiation between earned and unearned income, appear to be more in the nature of a differentiation in favour of unearned incomes. The state is thus deprived of a share of revenue from those in receipt of unearned incomes. These objections which are in the nature of privileges must be removed and their removal will enable the grant of an exemption in favour of earned incomes on the lines in force in the British system without any appreciable loss in revenue.

Tentatively, it is suggested that an exemption of 1/10 may be permitted in the case of earned incomes, the total amount of such exemption being limited to Rs. 500. Thus persons with an income of over Rs. 5,000 per year are not entitled to the benefits of such differentiation. Lack of an exemption limit in favour of earned incomes is bad enough: insertion of provisions favouring investment income in the absence of any exemption of incomes from work is wholly unjustifiable. An exemption limit on earned incomes together with a scaling down of the deductions now permitted from income on investments, property, business, etc., along with the acceptance of a policy not to attach income-tax concessions in future for loan bonds and debentures issued under the authority of Government—these tend to make the tax just without appreciably sacrificing its productivity. The question relating to agricultural incomes is excluded from the purview of the present paper. Besides it is now treated as a source of revenue to be administered by provincial Government under the Government of India Act 1935.

The concession accruing to persons with earned incomes under the tax system prevailing in the United Kingdom (confined to persons with incomes not exceeding £2,000) as against those with mixed incomes is indicated in the following statement.¹⁰

¹⁰ 1/10 of earned income was being exempted, the maximum being £200. This was altered to 1/5 and the maximum was raised to £300, thus reducing the maximum limit from £2,000 to £1,500. P. 174—Taxation of Foreign and National Enterprises in the U. K. and p. 94—Report of the Colwyn Committee on National Debt and Taxation.

1925-26.

INCOME-TAX AND SUPER-TAX.

Income.	On Income wholly earned.	On Income half-earned and half investment.
£	£ s. d.	£ s. d.
500	10 3 4	14 6 8
1,000	81 3 4	97 16 8
2,000	264 10 0	281 13 4

Personal Allowances.

A scheme of personal relief is found to exist in the income-tax system of very many countries and this helps to bring about an adjustment between the income of an individual and his ability to contribute. Attention of the Indian Taxation Enquiry Committee was drawn to the necessity for personal allowances. Witnesses before the Committee pressed for two alternative reforms, *viz.*, (1) the introduction of a scheme of family allowances in respect of wives, children and dependents; (2) reduction of the exemption limit from Rs. 2,000 to Rs. 1,000. The Committee placed the existence of the high exemption limit against the claim for family allowances and observed that 'it would be best under Indian conditions to set off the higher exemption limit against the absence of allowances in respect of dependents, in other words to maintain the *status quo* in both matters.' It must be added, however, that a member of the Committee urged for the introduction of a scheme of abatements.

The arguments advanced by the Committee in support of *status quo* may be briefly examined. They are:

- (1) Absence of safeguards against fraud likely to be attempted in putting forward claims for such allowances.
- (2) The existing set-off under the prevailing high exemption limit.

These objections are answered by two economists. Dr. Paranjpye says that 'he does not consider that any assessee would make a false declaration without being easily found out.'¹¹

¹¹ Dr. Paranjpye would allow an abatement of Rs. 200 for one wife and Rs. 150 for each minor son or unmarried daughter up to a maximum of Rs. 950 provided it was claimed—Report of the Indian Taxation Enquiry Committee, p. 196.

Prof. N. S. Subba Rao observes in the course of his enquiry into Taxation in Mysore that 'The Committee have both exaggerated the chances of fraud and ignored the fact that a high exemption limit does not meet the case of those above the limit for some allowance for wives, children and dependents. The drawback of the present limit both in British India and Mysore is that the tax falls with abruptness on those that are not far above the exemption limit in the absence of graduated abatements.'¹² The English system is more logical, and in addition, the fact that incomes below £162 in the case of the unmarried wage-earner and £270 in the case of the married wage-earner are not taxed, incomes above those limits are taxed on a point only which tends to be longer as the incomes become larger in extent and as the subject has no family.

Exemptions secured under a general exemption limit and exemptions secured under a scheme of personal relief differ fundamentally. The incidence of the tax is considerably affected under these two differing systems. The latter attempts a real adjustment of the burden of the tax to ability to pay, while the former secures almost a wholesale exemption from taxation for one section of the Community who possess incomes with a taxable capacity. Besides as the exemption limit is in the shape of a fixed amount of income, those above the limit are totally deprived of any benefit. An exemption limit of Rs. 2,000 appears to be very high as well. It is desirable to replace the present practice by a scheme of exemption based on the principle of securing relief to the taxpayer with a view to adjust the taxable income to his ability to pay. A tentative scheme is suggested below:

Maximum relief to be claimed	..	Rs. 1,200.
Allowance for self	..	Rs. 600 (Rs. 50 per month).
Allowance for wife or wives	..	300
Allowance for children and dependents ..	..	100 for each subject to a maximum of Rs. 300.

The above scheme reduces effectively the exemption limit from Rs. 2,000 to Rs. 600 in the case of bachelors, Rs. 900 in the case of married persons without children and dependents and Rs. 1,200 in the case of persons with children or with dependents. The limit of Rs. 300 is based on the generally accepted formula that a family may be taken to consist of 5 persons.

Even on the assumption that the full relief of Rs. 1,200 is claimed by all the tax-payers, (this has to be allowed on the ground that there are extreme difficulties of verification), the loss sustained thereby in the revenues of the Government is likely to be more than compensated by the tax raised from persons below Rs. 2,000 who are now exempted from taxation. Acting on the hypothesis that marriage is universal in India and that the tax-payer thus becomes entitled to a relief of Rs. 900 (Rs. 600 for himself and Rs. 300 for his wife), it is presumed that this does not act as a severe hardship in view of the low rates we are going to propose. With slight alterations in the tentative scheme outlined above, it is believed that it may be possible to make the Indian Income-tax more logical and equitable without diminishing the yield of the tax. The administration of the tax may be more complicated and this must not stand in the way of reforms intended to make the tax system sound and just.

Schedule of Rates.

The Indian Taxation Enquiry Committee observed that the existing scheme of charging rates by ranging incomes into classes by reference to amount of income was defective and that the defects were not remedied in full with the modifications introduced by Section 17 of the Act relating to marginal relief. The English system of a standard rate with provisions for slight modification appeared to be quite sound. This will certainly enhance the yield, if the standard fixed is fairly high. Such a wholesale revision, however, cannot be upheld in view of the great disparity in the level of incomes between the two countries and also in view of various other differences in the political, economic and social conditions between the two countries. The number of men with high incomes is indeed small in India. It was estimated a few years ago by Prof. Batheja that the number of men with an average annual income of Rs. 5,000 or more may be about 5 lakhs.¹³ An income of Rs. 5,000 is by no means a big income, fit for taxation at the standard rate.

Under such conditions a combination of the system prevailing in England with the one proposed by the Central Board of Revenue for the Indian Taxation Enquiry Committee, is suggested. Administrative difficulties have to be put up with for a time till it can be further simplified. The increase in the rate has to be pitched against the scheme of exemptions and reliefs

¹³ Development Finance—a paper by Prof. Batheja read before the Indian Economic Conference.

we have suggested. The effective rate will be much lower than the nominal rate.

B. Class.

Incomes up to Rs. 5,001 per year.

First slice of Rs. 1,000	..	Four pies in the rupee.
Second „ „ 1,500	..	Six pies in the rupee.
Third „ „ 2,500	..	Nine pies in the rupee.

A. Class.

Income of Rs. 5,001 and above.

First slice of Rs. 5,000	..	Half the standard rate in respect of the income above Rs. 5,001.
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The balance is to be charged at the full standard rate. The standard rate is to be determined each year with reference to the prevailing economic conditions of the time and the needs of the state.

Conclusion.

In 1924 the Indian Taxation Enquiry Committee considered it advisable 'that for the next few years, attention should be concentrated on the task of organising a really efficient machine for the assessment and collection of the tax.' Accordingly 'they have, in making recommendations for changes, refrained from advocating some which, though justifiable in theory, are not of sufficient importance to warrant interference at the present time with the process of consolidating and developing the administrative machinery.' The altered economic and political conditions in India have necessitated a re-examination of the finance of the Government of India. The future Government of India has necessarily to rely in an increasing measure on Income-tax as an important source of revenue. It is therefore urged that at this opportune time no pains must be spared to overhaul the income-tax system so as to make it more equitable and more productive.

ROAD-RAIL PROBLEM IN INDIA

BY

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The road-rail problem is one of the 'growing pains of civilisation.' Railways do not constitute the kind of investment as our irrigation system that has and probably will stand the ravages of time. Competition between railways and bus is a necessary stage in the evolution of transport. The problem was not keenly felt till during the past few years. The Indian Road Development Committee which submitted its report in 1928 did not make even a passing reference to the question. It was a real monopoly that the railways in India enjoyed. But today the critical position of our railways is in common with the railways in other countries. One reason why the problem has come into lime light in India, at a comparatively early stage is the serious deficitary position of the Indian State railways during the past five years. The publication of Sir Otto Niemeyer's report at this juncture was an event of no small importance in India's constitutional and financial history. He described the position of the railways as 'frankly disquieting' and ingeniously linked the financial stability of the provinces under the new constitution with the financial recovery of the railways.

The Scope and Limits of Competition.

According to the Mitchell-Kirkness report on the present state of road and railway competition submitted in January, 1933 the total annual loss to railways due to motor competition is estimated at Rs. 186.40 lakhs, or slightly under two per cent of the earnings of a normal year. It may be remembered that the above estimate is not likely to be more than a well-informed and well-reasoned guess. The railway receipts in a country are subject to diverse causes at a given time. In view of the patchy statistics that exist in India, it is well nigh impossible and particularly so during a period of economic depression, to reach even a fairly accurate figure. Again, whereas the existence of wasteful competition between the railways and motor transport is

recognised, no attempt has yet been made either by the railways or by an impartial authority to define what really constitutes 'wasteful competition' as distinct from 'legitimate' or 'healthy' competition.

Nearly one-half, *i.e.*, 48 per cent of the railway mileage in India runs parallel with metalled roads and the figure reaches as high as 94 per cent in the N. W. F. Province, for reasons mainly of a strategic nature. The complaint of the railways that it is the road that is the offender is rather amusing, because the roads were already there. The statement broadly speaking holds true, and the tragedy is that the complaints of the bullock-carts and *ekkas* were not loud enough to be audible. At present, however, the road-rail competition is almost entirely confined to short-distance passenger traffic. The goods traffic travelling by motor vehicles is daily increasing. The Mitchell-Kirkness report mentions the carriage of fresh fruits and vegetables from Rawalpindi to Delhi—a distance of 477 miles, but private lorries have been known to be carrying cotton from Okara in the Punjab to Gwalior. The largest run undertaken at present by goods transport is from Amritsar to Bombay, *i.e.*, 1139 miles by rail, passing through a number of provinces and States.

Controlling Road Traffic.

The need for the Provincial Governments to control motor transport arises from the fact that the rail and bus traffic do not at present operate under approximately similar conditions. The railways run under certain statutory obligations embodied in the Indian Railways Act. To recapitulate the more important of these: the maintenance of permanent track and rolling stock to a certain standard, compliance with an elaborate system of rules to ensure the safety of travellers, a highly trained and medically fit staff, the observance of schedule time tables for passenger services, the quotation of schedule fares and freight rates within certain prescribed maxima, the limitation of hours of work of employees and the provision of costly automatic braking gear. The owners of motor vehicles, on the other hand are not required to maintain stations and telegraph offices or to provide police, water and conservancy arrangements. Further railways are 'common-carriers'; they are bound to carry anything and everything. They have to carry heavy bulk traffic as well, *i.e.*, coal at low rates. The motor lorries are not so bound to do it. The motor vehicle driver, with a licence has a 'mobile plant' and can operate, broadly speaking, over any public road, at any hour and

charge what he likes, without any regard to punctuality, regularity or service. But this is not all. Passengers injured, when travelling by rail can claim compensation for injuries, but there is no such provision in law strictly enforced in the case of motor transport. The number of passengers killed in 1934-35 was 209 and 906 others received injuries. Road accidents, on the other hand, are a matter of daily occurrence. But we must remember, that quite often, a road accident is due to the fault of pedestrians the vast majority of whom are not blessed with 'traffic sense.' Railways, again, are the sole users of their permanent track, whereas motor vehicles run on roads open to pedestrians, cyclists, bullock carts and others.—Thus, it would appear that allegations of railways against motor transport are, to some extent, overstated. Rules of quarterly inspection of buses and lorries are enforced in most of the provinces including the Punjab and traffic police has been created and additions regularly made to their number to penalise overloading and other such offences.

It is clear that popularity of the busman has been earned by faithful services rendered. He has called and stopped at village after village and has provided cheap door to door service. Unlike the drowsing, dosing, high brow heirarchy of subordinate railway staff, the busman lives and sleeps in his bus, to which he looks upon as his 'castle.' Thus to the average villager, the railways do not make the same psychological appeal as the itinerant bus obviously makes. To the merchant and the trader, the lorry driver has provided warehouse to warehouse haulage of merchandise. Thus the motor industry has grown through sheer tenacity and service. It braved prosecutions. Finally it grew up inspite of the fact that it was heavily taxed in the shape of custom duties, licence fees and wheel tax levied by the local bodies. The secret of its success lies in the fact that it met the demand. The representatives of provincial governments were almost unanimous in eulogising the benefits of motor transport, at the Road-Rail Conference held in Simla in April 1933. The Hon'ble Mr. V. V. Kalikar said: "In fact, in my own province the agriculturists have benefited more by motor transport than by railways."

It is true that close on 800 crores of rupees of the taxpayers' money is invested in railways and they are certainly a great national asset. Transportation in Kipling's words is civilisation and when we use the work transportation, we must not exclude motor transport. Roads are also great national assets in peace as well as in war, when the enemy takes care to destroy

the usual communication by putting many railway lines out of order. India has a fairly good railway system, but it is poor in roads. It is a striking fact that United States of America, with a population less than one-half of British India, has about one-third of the total mileage of roads in the world, representing one mile of road per square mile of country. France, about one-sixth in size of India takes third place in respect of road mileage with 120 km. per 100 square mile, compared with 95 km. in Great Britain, 62 km. in United States of America and 45 km. per 100 square mile in Germany. In spite of the considerable progress made in communications, during the last fifty years, by India, she remains a country of winding and mysterious beaten tracks that disappear into the rural areas. In Sind, a newly created province under the new constitutional reforms, and covering an area of 46,000 square miles, there are only 711 miles of provincial roads at the present moment, out of which 134 miles are metalled. The following table indicates the per capita distribution of automobiles in some of the important countries:

Country.	Population.	Cars Registered (as at Dec., 1933).	Persons per car.
Italy ..	41,806,000	347,264	120'0
Germany ..	65,306,130	690,000	94'6
Netherlands ..	8,290,389	143,853	57'6
England ..	37,354,917	1,471,032	25'4
France ..	41,834,923	1,890,174	22'1
Australia ..	6,677,168	561,139	11'9
Canada ..	10,376,786	1,051,231	9'9
Newzealand ..	1,548,909	165,964	9'4
British India ..	271,526,933	169,390 ¹	1,603'0
China ..	450,000,000 ²	41,503 ¹	10,842'0

Thus India with one vehicle per 1603 of her population, along with Afghanistan, Ethiopia, Republic of Liberia and China represents the lowest rate in the world. Even South Africa with one vehicle for 51 of her population beats us. It is not to be wondered at therefore that our bullock cart has till recently been the most photographed object in the tourists' album. This explains the jibe that foreigners hurl at us that if better bullock carts are ever manufactured, it shall be India who will manufacture them.

It is obvious that the way for progress lies not in killing the motor transport by means of restrictive legislation, but in co-

¹ These figures relate to 1932.

² Approximate.

operation and co-ordination. To sum up, the needs of India, as a whole should take precedence over a sectional defence and protection of either the railways or motor transport.

Steps taken by the Government.

A preliminary, but representative road-rail conference was held at Simla in April, 1933 to enable the delegates to have a full frank exchange of views upon the important and complicated questions arising out of the Mitchell-Kirkness report. The Conference was followed by detailed discussions which resulted in the creation of the Transport Advisory Council and the reorganisation of Boards of communication in the Provinces. The Transport Advisory Council is not a representative body in the real sense. The Motor Vehicles Bill prepared in consultation with the Council and recently introduced in the Assembly did not, therefore, meet with the approval of the House and has been circulated to elicit public opinion. The object of the Bill is to empower local governments to control road services on lines laid down in the bill. It is proposed to restrict the number of motor vehicles plying on certain routes to impose fixed time tables and schedule of fares and prescribe zones within which road services may continue to operate against parallel railway service.

Method suggested.

It is not by placing a few legal restrictions on the motor transport that the Indian Railways can get out of the financial morass in which they find themselves. The only way out is by increasing the efficiency on the technical as well as on the administrative side that they can avert the financial ebb. Railways in Europe and America, faced with similar problems that railways in India have to solve, are determined to make friends with the public. They are bent upon to make 'rely on the rail' a real living slogan which performs to the last degree of efficiency the promise that it embodies. What are the railways doing in India? Even today the railway-man in India, at any rate, is not like his brother in commerce and industry. There has, curiously enough, occurred little change in his outlook and he still carries ideas of prestige and power in his head. For years together, the grievances of third class passengers have been voiced in the Legislative Assembly, but with little practical result. Mr. G. G. Sim in reply to a question asked by K. B. Sarfraz Husain Khan stated on 23rd January, 1925 that as many as 65·4 and 43·6 per cent of the third class carriages in the Bengal and North-Western

Railway and the East Indian Railway respectively were not provided with latrine accommodation.³ Again, it would appear from the report of the Railway Board for the year 1933-34 that the percentage of vehicles provided with latrine accommodation in third-class compartments in the Bengal and Nagpur Railway was only 57·7, 58·6 in the B. B. and C. I. Railway, 88·4 in the Eastern Bengal Railway, 68·4 in the G. I. P. Railway, 77·7 in the Madras Southern Mahratha Railway, 88·5 in the South Indian Railway, 40 in Barsi Railway, no latrines in Jamnagar and Dunagar Railway. Sir Joseph Bhore, the then Commerce Member to the Government of India, in a speech on a cut motion in the Legislative Assembly, said on the 7th March, 1935: "At the moment, we are at work on a completely new design for a third class coach which will, I hope, embody a great many of, if not all, the suggestions put forward."⁴ But the travelling masses, i.e., the third class passengers who contribute over 89 per cent to the earnings from passenger traffic on the railways in India, continue to receive 'sour milk.' A Press Note dated 22nd October, 1936, states that experiments are being made in Bombay with a new type of railway coach. Instances quoted above clearly show that the Railway Board in India moves with a foot of lead, whenever and wherever there is the question of readjustment to changed circumstances. It is a poor consolation, indeed, that the East Indian Railway created a stir in the press by the success of an experiment in reservation of third and inter class seats, for a nominal charge.

Let us now turn our attention to the measures which the railways in India are taking to meet motor transport competition as regards merchandise. A Railway Rates Advisory Committee was constituted in 1926 to redress any grievances of the public, in the matter of railway rates. It is interesting to note that it was only in July, 1935 that the railways in India cared to take the businessmen into confidence probably for the first time in history. Whereas railways in foreign countries reduced their freight rates to facilitate the movement of goods, most of our railways, including the North-Western Railway have raised the rates in the teeth of emphatic protests lodged by the merchantile communities. This enhancement of freight rates on the latter railway will effect as many as 215 commodities and the percentage of increase varies from 7 per cent on manufactured tobacco to 10

³ Legislative Assembly Debates, 1925, Vol. 5, p. 107.

⁴ Legislative Assembly Debates, Vol. 2, 1935, p. 1844.

per cent on kerosene oil. It is needless to comment on the baneful effect of this step on trade recovery which is already slow to come. It will be of interest to know the measures that railways in other countries are taking to attract traffic. Some of them have employed travelling contract men to deal with transport problems of every kind with businessmen travelling by the train. Among other steps taken to rejuvenate their methods, may be mentioned the simplification of traffic formalities, creation of door to door services, extension of office hours, establishment of direct services between the stations and the central markets, publication of goods train time tables, collaboration with forwarding and transit agents and carriage of express packages by fast or express train.

The Future.

The day is sure to dawn when the railways shall have yet to face competition by air. The business world in some of the advanced countries has begun to make use of air facilities of all kinds. It might be of interest to know that British Empire which stood second in 1933, now leads the world in the matter of aviation. India too has made considerable progress and this is evident from the following figures:

The number of passengers who travelled by air in 1935 was 551 against 155 in 1931. Internal regular air service covered 555,754 miles in 1935 compared with 153,680 in 1933. The railways must modernise their ways and face the pains of adjustment. The interests of capitalists are great, but still greater is the public weal which should on no account be sacrificed at the altar of monopolistic greed. It may be remembered that the road-rail problem is not the only or indeed the most important problem before the Indian State Railways to-day.

ROAD RAIL COMPETITION ON THE BENGAL AND NORTH WESTERN RAILWAY

BY

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“We believe that we have in India a golden opportunity of taking timely action so as to avoid, before it is too late, the disastrous position into which the transport system of some countries appears to have been allowed to drift.”

—Sir Frank Noyce.

Road Competition.

Road and rail competition though severe in many civilised countries is of recent origin in India. The problem first came into prominence in this Country with the appointment of Jayakar Road Development Committee in 1927. This Committee recommended to the Central Government the establishment of a Road Fund for the development of All-India trunk roads and feeder roads. This device though improved the road system to a certain extent yet helped to accelerate the speed of road competition with railways. A Committee of two officers¹ was, therefore, appointed to consider the possibilities of solving the problems arisen out of road-rail competition, and subsequently a Road-Rail Conference was also held in 1933, which discussed the matter in a general way and adopted a series of resolutions regarding the future development of roads, the necessary control of motor transport, and the establishment of a co-ordinating machinery. This gave rise to the creation of a Transport Advisory Council, holding its first session in 1935. The Conference formulated a precise statement of policy to secure the co-ordinated development of road and rail transport. Then next meeting of this Council was held at Simla in July last, wherein the Viceroy

¹ Mr. G. K. Mitchell, Road Engineer with the Government of India and Mr. L. H. Kirkness, D.S.O., O.B.E., V.D., Secretary, Railway Board.

asked the representatives of Provincial and Central Governments assembled in Simla 'to evolve a workable policy whereby road and rail as complementary systems of transportation might be further developed for the benefit of the people of India.'

The Bengal and North Western Railway.

These deliberations have attracted the attention of many an expert, and consequently valuable studies dealing with the general nature of this topic have been produced. It is, now, high time that attention should be diverted to the study of road problems in relation to individual railways. For the purpose of this paper, therefore, we shall confine ourselves to road conditions affecting the Bengal and North Western Railway Company.

While dealing with this Railway it should not be forgotten that we are concerned with a typical Company enterprise which has extended its branches into an area of land which is primarily rural, exceptionally fertile and densely populated. Its main routes are followed by parallel road-ways, which though badly constructed and poorly maintained are yet formidable competitors in certain ways, at certain stages. The Railway lines in spite of the agricultural prosperity of the area traversed are not well-connected with the interior by feeder roads. The rates and freights of the Company are at comparatively too low a level to be exploited; but a considerable part of the system being made up of short and circuitous lines gives an impetus to bus enterprise in competition with the Railway.

Railway's Claims for Protection.

Keeping these conditions in view we have to determine whether the Bengal and North Western Railway is suffering or is threatened to suffer from roads in "wasteful" or "uneconomic" competition, and whether the Railway's claim to be allowed to meet the competitions 'in fair terms' is justified.²

Views on Wasteful Competition.

Before proceeding any further on this point we have to make sure about the meaning of the words "wasteful" and "unfair"

² Unfairness lies in higher costs of railway working on account of statutory obligations, which they have to fulfil, and their inability to lose certain high class traffic on account of their complicated rate-structure, which keeps the balance.

competition. These words are subject to more than one interpretation. 'A railwayman's idea of what would form a wasteful competition would, as far as motor transport is concerned, be very different from that of the people interested in operating motor transport.' Sir George Schuster (on the side of the Railways) is prone to believe that if the 'comfort and convenience of the people that use motor transport is not greater than what it was when they used railways, then undoubtedly we have a case of uneconomic competition.' While Mitchell and Kirkness uphold the allegation that motor rates, as they are usually charged, are uneconomic. On the other side there is Mr. H. E. Ormrod of the Indian Road and Transport Development Association. He holds that 'it is impossible to apply the words unfair competition to an industry which is so heavily taxed⁴ as the motor industry is. And replying to Mitchell and Kirkness he goes on to assert that 'whilst sporadic cases of uneconomic operation may occur, it is preposterous to suggest that the whole of the 45,000 buses and lorries in India can possibly be operated on an uneconomical basis.' Furthermore, the Hon'ble Sir Jogendra Singh, Minister of Agriculture in the Punjab, is disposed to think that in using the words wasteful competition it has been taken for granted that 'the competition between railways and motors is inevitably wasteful' and the advocates of this contention have neither fully comprehended the meaning of these words, in relation to rail and motor transport, nor have they thought out of any device to prevent the so-called wasteful competition, except by 'purely restricting motor traffic.'

Unequal Comfort as the Basis of Wasteful Competition.

Upon the merits of the views elaborated above Sir George Schuster's contention of unequal comfort as the basis of wasteful competition is liable to fall if the conditions in the Bengal and North Western Railway are not found worse than those on roads.

Travel amenities and comforts generally include:

- (a) comfortable accommodation, (b) well-adjusted timetable and frequency of service, (c) punctuality in

³ Page 55, Proceedings of the Road-Rail Conference.

⁴ According to Mitchell-Kirkness Report. Page 44, Rs. 83,000,000 are paid in taxation by motors in India, and Mr. Puckle, Financial Secretary to the Punjab Government, has calculated that taxes amount to 19 per cent of the total expenses in the case of busses and lorries, as compared to only 5 per cent in the Railway.

⁵ Page 41, Road-Rail Conference Proceedings (1933).

arrivals and departures and (d) minimisation of the cost of travel, etc.

The Bengal and North Western Railway, (not unlike state railways) is being universally condemned for its failure to decrease overcrowding in lower classes. Many a harrowing tale of tormented pilgrims congested into railway carriages and wagons are too well known to be related here. This view is also corroborated by Acworth⁶ and Thomas Robertson⁷ and is further supported by the debates of the Indian and Provincial legislatures.⁸ Its present extent may, however, be measured from the statement given below:—

TABLE I.—*Over-crowding in the B. & N.-W. Trains.*

1. Number of trains per day	209
2. Number of 3rd class carriages per train	10
3. Total No. of 3rd class carriages	2,090
4. No. of 3rd class seats per carriage	33
5. Total No. of seats	68,970
6. No. of passengers actually travelling	77,850
7. Measure of over-crowding	10%

Note.—(a) Carriages have been reduced into 4-wheelers.

(b) Certain assumptions have been made in calculating these figures, for want of statistics.

(c) The real problem of over-crowding arises during Melas and festivals; but a measure of that is not available.

A comparison of this statement with similar figures for roads would have, indeed, been interesting but as, unfortunately, no such statistics are maintained it shall suffice to admit that the fact of overcrowding is no less a problem in the case of buses as well. Coming to the question of Government interference in the matter of overcrowding, motor lorries seem to be running under a decided handicap, because in all cases of motor registration the Motor Vehicle Act has provided for the determination of the number of seats as well. Any violation of the limit, so imposed, is liable to penalise the owner of the Vehicle. The Indian Railway Act of the year 1890, on the other hand, only provides 'that every person desirous of travelling in a railway shall be booked conditionally on there being room available in the train for which the ticket is issued.'⁹ And in another section¹⁰ it is added that any

⁶ Acworth Committee Report, pp. 64-65.

⁷ Robertson's Report, p. 61.

⁸ Proceedings of the Assembly and U.P. and Behar Councils, 1935.

⁹ Section 68, Indian Railway Act, 1890.

¹⁰ Section 100, Indian Railway Act, 1890.

passenger ' wilfully entering into a compartment which is already full ' may be fined up to Rs. 20. But it does not impose any penalty for the violation of this rule by the railway authorities themselves. Evidently, in this respect the basis of competition is unfair and the Railway occupies an advantageous position.

We next come to the adjustment of time-table in the Bengal and North Western Railway. The question is whether the arrival and departure of trains are suitable to the needs of passengers who travel short distances for carrying out legal and commercial activities during the day time, or who are booked for longer journeys and have to wait for connecting trains at junctions? In the light of this question we shall examine certain branches of the Railway, where road competition exists, mainly for want of suitable train services.

I—Let us take up, for instance, Benares-Chapra line. Motor competition on this route is generally keen between Benares and Sarnath and between Ghazipur and stations intervening Aurhiar and Ballia. The time is given below:—

TABLE II.—TIME-TABLE SHOWING ARRIVAL AND DEPARTURE OF TRAINS ON BENARES-GHAZIPUR-BALLIA LINE.

Distance.	Particulars.	Arrivals.	A suitable arrival.	Departures.	A suitable departure.
Miles.		Hrs.	Hrs.	Hrs.	Hrs.
49	Benares towards and from Ghazipur.	(1) 13-30 (2) 23-38 (3) 3-30	10-30	(1) 2-34 (2) 12-3 (3) 20-47	17-0
39	Ghazipur to- wards and from Ballia.	(1) 7-22 (2) 10-42 (3) 19-50	10-30	(1) 5-38 (2) 14-42 (3) 18-4 (4) 0-37	17-0

II—Another instance is of three important places on the same line, namely, Gonda, Bahraich and Nanpara.

TABLE III.—GONDA, BAHRAICH AND NANPARA, ARRIVAL AND DEPARTURE OF TRAINS.

Distance.	Particulars.	Arrivals.	Departures.
Miles.		Hrs.	Hrs.
38	Gonda from and to Bahraich and Nanpara.	(1) 8-10	(1) 1-50
		(2) 12-20	(2) 13-30
60		(3) 23-38	(3) 18-40

Distance.	Particulars.	Arrivals.	Departures.
Miles.		Hrs.	Hrs.
38	Bahraich from and { to Gonda. }	(1) 4-3 (2) 15-32 (3) 20-50	(1) 6-7 (2) 10-8 (3) 21-27
60	} Nanpara from and { to Gonda and { Bahraich. }	(1) 5-28	(1) 4-0
38		(2) 16-48 (3) 22-30	(2) 8-0 (3) 19-5

Space does not allow any further examples.

Want of suitable connecting trains at change stations is another cause of discomfort which helps motor competition with the Railway. Let us examine the following cases:—

- (1) For Allahabad to Ghazipur there is a change at Benares (except in the case of Amingaon-Allahabad express, which runs through). Other train arrivals at Benares are: 8-23, 16-31 and 21-8 hours. Connecting trains are available at 12-3, 20-47 and 24-0 hours. A large number of passengers, therefore, find it more convenient to travel by motor lorries.
- (2) Ghazipur and Mau are only 36 miles apart, but the two places are neither connected by means of through trains nor suitable connections are available at Auriar, the change station. Train arrivals at Auriar are 9-7, 12-8, 21-43 and 1-54 hours. Connections are to be had at 10-7, 16-10 and 23-4 hours.

Want of frequency of train services is another set-back of the Railway, and but for motors, movements from interior parts of the western districts, which are served by the Bengal and North Western Railway would have been unnecessarily checked. Azamgarh and Shahganj line, for instance, is heavily infested with buses, because Shahganj receives traffic both from the direction of Fyzabad and Jaunpur-Benares. Arrivals from these two directions are as innumerable as nine in a day, while the number of B. & N. W. trains which await traffic from these lines is as small as three per day.¹¹ The total frequency of trains in the Railway is about 124 (up and down) per day as compared to 248 in the B. B. & C. I. R. (M.G.), and 128 in the M. & S. M.

¹¹ Figures taken from Railway statistics No. 84.

(M.G.). Difference in the total route mileage of these systems may be noted below:—

B. & N.-W. R. . .	..	..	2122 miles. ¹²
B. B. & C. I. R. . .	..	..	2207 ..
M. & S. M. R. . .	..	..	2081 ..

In this respect as well, the claim of unfair competition falls to the ground and the supremacy of comfort in the B. & N. W. Railway is fully denied.

In regard to the punctuality of trains and motor buses again, though the coaching tariff has not accepted any 'guarantee of the arrival and departure of trains at the time specified in the time-table,'¹³ yet the figures given below do reveal an attempt on the part of the Railway to adhere to scheduled timings, as far as possible.

TABLE IV.—PUNCTUALITY¹⁴ OF TRAINS IN METRE GAUGE RAILWAYS.

Year.	All trains.	Important through trains.	Mixed trains.	Other passenger trains.
1934-35	88'3	87'2	87'0	85'8

Timings of the bus and motor services, on the other hand, are less rigidly observed. The reason is to be found, not only in the use of old and worn out machines, and inefficient staff, but also in the inefficacy of control and unauthorised detentions by the controlling authorities—the Police. The failure of motors in this respect allows a premium to the Railway and should not be deemed as attributing to wasteful competition.

Uneconomic Rates as the Basis of Competition.

Lorries and buses 'are being run at rates which are certainly uneconomic' is another view held by the exponents of Wasteful Competition Theory. We shall now examine the validity of this statement and see whether motors or the railway has succeeded in bringing down the level of rates to the minimum. A motor rate, we know, is uneconomic if it does not cover the cost of

¹² Figures taken from Railway Administration Report.

¹³ Rule 16, Chapter I, p. 3.

¹⁴ No separate statistics for the B. & N. W. R. are available.

carriage and working expenses, including depreciation.¹⁵ A typical commercial motor vehicle according to Mr. Puckle does about 15,000 miles a year and 'on this basis the total expenditure for a year's running including an allowance for depreciation and interest on capital, is in the neighbourhood of Rs. 5,000 which works out to something round about Rs. 0-5-0 per vehicle mile,¹⁶ while this cost in the B. & N. W. Railway comes to about Rs. 0-4-0 per vehicle mile only.¹⁷ The seating capacity in a railway vehicle is generally more than three times the capacity available in a bus. And, the amount actually charged by the Railway is 2-3 pies per passenger per mile, i.e., about 8·7 annas per vehicle mile (a vehicle carrying 50 passengers). According to this calculation Railway's profit per vehicle mile comes to 4·7 annas. This figure compares favourably with the statistics of revenue earnings and expenses given in the Indian Railway Administration Report of the year 1934-35,¹⁸ and shows likewise a margin of 50 per cent over gross earnings. This is undoubtedly a high rate of profit, specially when other metre gauge lines are earning comparatively much less.¹⁹ Motor rates, on the other hand, in competition with these lines are generally the same as of the Railway—at times rather less. These rates should enable motor buses to fetch a profit of 3·7 annas per vehicle mile. But in actual practice their net profit is further reduced on account of competition between themselves and unauthorised rides that they have to allow for controlling Police authorities. Ultimately, therefore, when the railway rates are Rs. 0-8-0 per vehicle mile motors charge Rs. 0-6-0 to Rs. 0-7-0 only, thus making a profit of one to two annas per vehicle mile. This rate, though comparatively much lower, is competitive, rather than uneconomic.

¹⁵ 1½ ton being the standard.

¹⁶ Annual expenses are roughly divided into cost of running including depreciation and wages equal to Rs. 4,050 81 per cent and taxes of all kinds equal to Rs. 950 19 per cent.

¹⁷ Re : statements 7 and 19 of the I.R.A. Report, 1935.

¹⁸

Statement of Revenue-earnings and Expenses in the B. and N. W. Railway for 1934-35.

Gross-earnings per train mile.	Working expenses per train mile.	Net-earnings per train mile.
Rs. 4-0	Rs. 2-0	Rs. 2-0.

Page 112—Indian Railway Administration Report.

¹⁹ B. B. & C. I. R. gets about 33 per cent., E. B. about 20·4 per cent and M. & S. M. about 40·1 per cent (all M.G.).

Moreover, the advantages that motors incidentally offer in connecting villages with the small neighbouring districts, where the market and the courts are not far off from lorry stands, is no less real. Arriving right into the heart of the city without a change or break is not only economical but also convenient. Motor timings are, further, adjusted according to the needs of the traffic, and therefore, allow for an economy of time which is otherwise, not available in the Railway.

In certain cases, however, competition among motor buses themselves is, no doubt, uneconomic. Such cases are generally independent of railway lines, and provide cut-throat competition of the last degree, which in its turn is bound to bring about the the industry a 'natural death.' This fact has been realised by motor owners, and their combination in the form of syndicates is growing fairly popular on hillside roads, where the volume of traffic is very large during the season. Thus, between Naini-Tal and Kathgodam bus rates were formerly 8 to 12 annas for about 20 miles, which have now risen to Rs. 1-8-0 due to the combination of motor transport companies in Naini-Tal.

It, therefore, appears that the allegation of Mitchell and Kirkness about uneconomic motor rates in competition with railways is not applicable to the case of the Bengal and North Western Railway Company. And, that in spite of the fact that rates and freights are lowest in the Railway, there is still room for further minimisation, which cannot be had without unrestricted motor competition.

Obligations of the Railway and Roads.

Another claim of the Railway as to the track of motor transport, the contribution for the maintenance of which 'should correspond roughly to the contribution made by the railways, plus expenditure definitely attributable to track,'²⁰ arises out of the following obligations which the Railway has to fulfil at a high cost²¹ :—

“(1) The maintenance of track and rolling stock to a certain standard, the track and rolling stock being subject to statutory

²⁰ 'The Salter Report proposes to charge motor transport with the total cost of maintenance, improvement and construction of highways and bridges. Before arriving at this conclusion they considered two points (i) the community use and (ii) the legacy from the past! According to them these points cancel each other and therefore, they held that all future expenditure was chargeable to motor transport.

²¹ Page 14-15, Road-Rail Conference Proceedings, 1933.

inspection, (2) compliance with an elaborate system of working rules devised to ensure safety, which involves an expensive system of signalling, and restrictions as to speed and load of trains, provisions of costly automatic braking gear and highly trained staff, (3) the quotation of scheduled fares and freight rates within certain prescribed limit, (4) limitation of the hours of work of employees to comply with certain maxima, (5) the observance of scheduled time-tables for passenger service," the compliance of each of which costs money.

Against this it should be noted that motor transport contributes 19 per cent to the General Revenues, while the Railways' aggregate of contribution is now 4.39 per cent (including 1 per cent annual contribution to General Revenues). During these days the percentage of loss on Capital at charge is estimated at 0.69 per cent.²² The Bengal and North Western Railway is still more happily situated in this respect. It has to pay 1 per cent revenue to the Government for its main line and branches, while for the Tirhoot Section which it works for the State, the contribution was 7.56 per cent of Capital at charge in the year 1934-35.²³ The percentage of gain over last year was 3.66. The cost of using roads is, therefore, 'more than met' by the motors and the railways' demand for further taxation of roads is unfair.

Extent of Road Competition in the B. & N. W. Railway.

If the question of competition were to be decided only on the basis of net-annual earnings, we would have associated ourselves with the authors of the Indian Railway Administration Report, who contend that on this line 'competition is not serious at present.'²⁴

TABLE V.—NET ANNUAL EARNINGS IN THE B. & N.-W. R.

Year.	Net earnings in '000.			
1930-31	1,69.74
1931-32	1,69.04
1932-33	1,81.68
1933-34	1,87.17
1934-35	1,73.50
1935-36	1,95.40

According to the above figures there appears to be absolutely no competition between roads and the Railway. But the recent

²² Page 22, Cols. 4 and 10, I. R. A. Report, 1934-35, Vol. II.

²³ *Ibid.*

²⁴ Page 41, Vol. I, Chapter IV.

development in the produce of sugarcane and sugar industry has affected the mobilization of labour and raw-material tremendously.²⁵ This mobilization plus the enlightenment of the inhabitants of western districts has caused a considerable increase in the volume of traffic, and consequently a fair and steady rise in the net-earnings of the Railway. But the large bus traffic on parallel roads manifests the existence of a certain amount of competition which cannot be denied. This is primarily the surplus traffic which is left over by the trains every day that finds resort in roads. Did the Railway care for the acquisition of this part of the traffic as well, it could not have otherwise been captured by buses. An example will make this contention clear. Lakarmandi Ghat to Basti is a distance of about 40 miles. It has a change at Mankapur (about 20 miles from Lakarmandi). Suitable trains connecting passengers with Basti-Gorakhpur train at Mankapur available five times a day (up and down). While about six motor buses of the capacity of 18 passengers each run between Basti and Lakarmandi every day. This means to the Railway a loss of about Rs. 68 per day (taking the railway fare to be 0-10-0). Bulk of this amount could have easily accrued to the Railway, if there were more frequent and through services between Basti and Lakarmandi Ghat.

Measures adopted to Compete with Buses.

On account of increasing net-annual earnings, the Railway has been neglecting road competition, and has failed to adopt any protective measures, except in cases of very severe competition, where signs of monetary losses are evident. Such signs are definitely available on the following branches:—

- (1) Bhatni-Gorakhpur-Mankapur-Gonda-Barabanki.
- (2) Allahabad-Madho Singh.
- (3) Muzaffarpur-Mokamaghat.
- (4) Azamgarh-Shahganj.
- (5) Ghazipur-Azamgarh.
- (6) Benares-Allahabad.
- (7) Basti-Lakarmandi Ghat.
- (8) Bahraich-Gonda-Naipalganj, etc.

All these lines are served by two to six regular and non-regular motor services per day, in accordance with the density of traffic.

²⁵ Railway Administration Reports, Vol. II, various years.

On certain lines, therefore, the Railway has adopted a unique method of competing with buses. The method is this: Two or three 3rd class passenger carriages are attached to certain goods trains, which pass through an area of keen motor competition. No mention of these is available in the time-table and hence it is not possible to put down here the routine and the number of such trains. An instance from personal experience will, for the present, suffice. To a goods train which leaves Aurhār at about 9 A.M. some 3rd class compartments are attached and to these passengers are booked between Aurhār and Yusufpur intervening distance being about 38 miles. Time spent in the journey is between $4\frac{1}{2}$ to 5 hours. This train being a goods train is not only slow-going, but also regularly late.

The Railway has not yet realized the advantages of cheap return tickets for 3rd class passengers, as a measure of checking road popularity. It offers return tickets to I, II and Inter class passengers only, when they are booked for more than 50 miles.

In regard to other amenities as well, the Railway has always been ignoring public demands. So much so, that the Provincial Councils of Behar and the United Provinces recommended to the Central Government in the year 1931 that the Company should be purchased without delay. And, the Select Committee that was appointed in the same year to consider the question of purchase declared in their report that the Bengal and North Western Railway Company's management 'has frequently given rise to adverse public criticism, and that consequently a desire has been expressed 'that the line should be transferred to state management.'

Motor Taxation, as affecting the Railway.

Motor registration rules that have been recently (1935) promulgated in the United Provinces, and further taxation of roads which is now being considered by the Central Government, will essentially deter road development in India. This shall, though necessarily restrict motor transport, not place the railways in a better position, for the restriction is intended to be universal and will affect rural areas and feeder roads as heavily as the roads parallel to the Railway. Thus the gain of traffic on parallel roads shall be, to a certain extent, balanced by its counter loss on feeder roads resulting out of restricted means of communication in rural areas. If, however, parallel roads are improved there is still a very great likelihood that some of the passenger

traffic will continue to be diverted to roads for the reason of economy of time and money.

A comprehensive scheme of road development which has been vehemently advocated by Mitchell and Kirkness will, no doubt, make up for the present loss of balance in the system of roads. But it shall not ensure encouragement to motor transport on the newly constructed roads—roads which will serve as feeders to the Railway and not rivals. To attract transport on these roads Government will have to consider the possibility of abolishing the newly imposed U.P. tax, and of restraining further taxation. Moreover, the Rs. 0-2-0 per gallon petrol tax which is being assessed for the benefit of roads shall have to be so adjusted as to provide for the improvement of trunk roads and considerable new constructions in rural area. A temporary Rural Road Fund may also be created in the United Provinces and Behar to help the various schemes of construction. This Fund should be maintained from the grants of Central and Provincial Governments and strengthened by loans, where the scheme is expected to be fairly productive.

Policy of Road and Rail Co-ordination.

It must also be remembered that road restrictions shall not be of any advantage to the Railway, unless a well-planned policy of co-ordination between roads and railways is also brought into effect. There are no two opinions on this point, but the agreement has not yet been reached with regard to the method of co-ordination that should be adopted. One of these methods, which was referred to as "Zoning" has been discussed by Mitchell and Kirkness in paragraphs 31 and 36-39 of their report. It aimed at limiting the range of motor transport in cases of direct competition with the roads and railways. The proposition is rejected outright by rail interests on the basis that within a Zone, of 50 miles, the railways receive 37 per cent of 3rd class passenger earnings, and Zoning would, therefore, leave open to attack from motor transport that very substantial part of their revenues on nearly one-half of the total mileage of railways in the Governor's Province.²⁶ The other method which is more widely discussed is of giving the railways monopoly of roads parallel to the railways. Having studied the prevailing conditions of transport facilities in the Bengal and North Western Railway, we cannot

²⁶ Para. 90, Mitchell-Kirkness Report.

²⁷ Sir Frank Noyce, p. 96, Road-Rail Conference, 1933.

disregard public opinion on this subject, which seems to advocate that while 'uneconomic competition between motor lorries and railways should not be encouraged' the existence of a competition would bring out the best in both and make it possible for each of them to serve its clients better. If motor competition is annihilated by the adoption of any stringent measures, the railways will very likely become still more inefficient and less responsive to the needs of the public.²⁸

In adopting measures of co-ordination, however, we must not lose sight of the fact that they should be allowed to grow harmoniously alongside with the provision of cheap rates for the transportation of agricultural produce and other traffic. Furthermore, 'the convenience, elasticity and economic advantage of motor transport' which has, in fact, proved to be very real should not, as well, be overlooked. We have seen above that all proposals hitherto offered in the matter of co-ordination have been on the assumption that a certain degree of wasteful competition was inevitably disturbing the equilibrium of railways' earnings and expenses. But a careful study of this subject in connection with the Bengal and North Western Railway falsifies this assumption. Therefore, the claim of Sir Guthrie Russel 'that road and rail services should be placed on a comparable footing' is not justifiable in connection with this Railway. But, we do believe that the Railway may be allowed to run its own motor buses in competition with other lorries. The Road-Rail Conference of 1933 had also recommended that 'the statutory provisions which at present limit the operation of motor service by certain railways should be repealed.' We, no doubt, as independent critics, do commend the resolution, but under the present circumstances we cannot advocate the granting of a monopoly to the B. & N. W. Railway on parallel roads. The Railway, however, may come into the field as an open competitor and the Government should restrict its activities, as also of other competitors, in such wise as to ensure the elimination of wasteful competition between these agencies.

So long as the development of roads in rural areas is not available on a fairly large scale it would be very unjust upon the traffic and upon those interested in motor transport industry, to impose restrictions against a means of communication which is certainly lucrative and cheap and in some ways also comfortable. The opportunities of such development in the area covered by the Bengal and North Western Railway is great, and specially the

recent development in sugar cane industry is giving promise of a magnificent future for the transport of agricultural produce and consequent increase in the volume of traffic.

Conclusion.

To conclude we must not fail to profit by the experiences of England and other countries that the only solution of the problem of road competition with railways lies in introducing measures of public comfort in railway services. The L.M.S. Railway of England has thus adopted the motto that "We want to make the service better still."²⁹ Railways in India, specially the B. & N. W. Railway, shall continue to find in roads a bitter rival unless they care to adopt measures of comfort and provide amenities of travel to the passengers.

²⁹ Times of India, 22nd April, 1933.

THE TRANSPORT PROBLEM IN INDIA

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The Railways in India are face to face with a serious crisis. The competition of motor transport is telling heavily on their finances. Traffic in passenger and goods is—for some time past—steadily gravitating from the railways to the motor lorry. Commodities having small bulk and bearing high railway rates are looking more and more to the lorries for transport. Even bulky goods are being transported through several provinces in lorries at rates cheaper than what the railways can quote. For instance, cotton is going from Amritsar to Bombay or to Howrah by means of motor lorries. No wonder that the railways are losing heavily in face of this new competition. It is estimated that the loss amounts to Rs. 3 crores per annum. The total loss to railways—due to all causes—in the six years from 1931 to 1936—amounts to Rs. 45 crores. If we add to it the unpaid contribution to general revenues—amounting to 31 crores—the total loss amounts to Rs. 76 crores. In addition to all this, the railway reserves have been washed out already. This is indeed a very serious problem. Our railways are drifting through deficits to the ditch. Even allowing for a moderate recovery in trade, the problem before the railways now is how to bridge a gap of something between 10 to 13 crores of rupees per annum.

This is a serious problem but it is not confined to India alone. The problem has now become international. In all countries throughout the world railway traffic has declined in recent years due to the competition of motor transport.¹ The road has come back into its own again after nearly a century. Some of the British railways have not been able to pay any dividend for several years while 72,000 miles of American railways have recently gone into the hands of the receivers.

¹ See *Road and Rail in Forty Countries*, by Wohl and Albitriccia.

Public attention in India has been focussed on the problem since 1932. In 1932-33 two experts (Mitchell and Kirkness) were deputed by the Government of India to examine the problem and they submitted their report in January, 1933. In April 1933, the Government convened a Road Rail Conference which recommended that motor transport should be controlled in the interest of public safety and convenience and also to prevent uneconomic competition with the railways. A Transport Advisory Council—created as a result of conference—met in January, 1935 and again in July, 1936 and it has recommended specific methods of controlling motor transport and the Government have already presented a bill for the purpose in the Indian Legislature to carry out its recommendations.

There is no attempt, anywhere, to minimise the importance of the railways to India. The economic effects of the railways are incalculable and they need not be recapitulated. The railways constitute the largest property of the tax payer. They are vital to the economic well-being and prosperity of the country. They have brought about the economic development of the country on the one hand and the political and military security of the people on the other. They have transformed our agricultural industry by giving it the benefit of higher prices through the world markets. They have been of infinite advantage to India and her people.

Such being the importance of the railways, the effects of uneconomic competition are bound to be disastrous. The railways are the greatest property of the tax payers and about Rs. 800 crores of the tax payers' money is invested in them. This huge national capital is now in jeopardy. The solvency of the railways is of prime national importance to India. India can ill afford to let Rs. 800 crores turn into dead capital. If it comes to the worst, the railways will become a permanent burden on the tax payers of India. Or, if the railways find that they cannot hold the traffic they will be forced to maintain solvency by increasing their rates and charges on such traffic (goods or passenger) where motor transport does not or cannot compete. Its effect on the bulky agricultural commodities will be disastrous—specially on their prices and their markets. It would thus profoundly disturb the relative market values of all commodities in the country and thereby re-shuffle the systems of crop cultivation throughout India.

Let us, first of all, analyse the causes as to why the railways can no longer compete with motor transport. These causes can be stated under two broad heads, *viz.*, (a) How is motor trans-

port better than transport by rail and (b) How does railway transport fail to meet the needs of the public. We shall analyse each of these causes separately.

How Motor Transport beats the Railways.

Transport by motors has certain advantages which the railways cannot provide. The motor collects the passenger almost from their houses and drops them almost at their exact destinations. It thus saves them the time, expense and trouble involved in two long journeys to and from the railway station at both ends. Similarly, it collects the goods from the sender's godown or factory and delivers them at the exact place where the consignee wants it. He has not to dance attendance day after day at the goods office in order to save demurrage. The handling of goods is reduced to a minimum and special packing becomes unnecessary. Goods can be despatched at any hour convenient to the sender or to the factory and the motors give quicker delivery as they are not subject to the usual restrictions on goods trains in the railways as regards loading, unloading, marshalling and speed. The railways do not guarantee delivery within a particular time as motors generally do. The quicker delivery means more rapid turnover of capital and therefore greater profit. That is how the ultimate cheapness of the motor freight arises. Freights, fares and rates are usually lower in motors than in railways and, due to overloading, the motors can quote uneconomic rates. The charges for conveyance and cartage to and from the station for passenger and goods traffic are saved. Further, goods are so carelessly handled in railways that there is a great loss through damages and breakages. Pilfering is also far too common in them. There is no tyranny of the railway risk notes in motors. However strongly a consignment may be packed, the railway receipt will always note that the stitches are weak or the packing is not strong so as to save the railway from any future liability. In motors there is no perquisites to be paid as in the case of the railway clerks. The collection of fares in buses is simple which even the most illiterate villager easily understands and appreciates. It is easier for him to find out which bus will carry him to his exact destination than in the case of the railways. The majority of the people in the country travel only short distances for which motor transport is more convenient than the railways. And, lastly, there is no insulting treatment, no lordly attitude which is far too common in the railways. The railways have become unpopular with the masses because of the scant

consideration shown so long by the railways towards the third class passengers who yield the maximum amount of revenue. The grossly discourteous and arrogant attitude shown towards them is responsible for the steady drift from the railways to the motor during the last 20 years. These are some of the advantages which the public or the trade appreciate. They have been educated to ask for such facilities now and if the railways cannot or will not provide them it is certainly not the fault of the motors or of the public that the railways are losing their custom.

How Railway Transport fails.

We now turn to the other side of the question, *viz.*, why the railways fail to meet the needs of the public. Our railways, strictly speaking, are a commercial organisation and they should be run as such. Like an ordinary businessman, the railways should try to secure—and retain—the goodwill of their customers. They should be animated by a real spirit of service. But this unfortunately has never been the case. We have already referred to their treatment of the third class passengers. If the railways had really looked after them, the third-class passengers would have looked after the railways. The railways have to thank themselves now for what they get. They should have adapted themselves to changes in ideas, tastes and wishes of the public. An ordinary businessman will reduce his expenses as soon as profits go down but our railways never cared. They met it by increasing rates and fares. The Railway rate policy has never been a success in India and it needs a thorough revision. The Indian Commercial community have a long standing grievance against the railways for their rate policy. It has long complained against preferential treatment of foreign imports against indigenous products. The present classification of rates was made long ago when prices were higher. As all prices have fallen recently, the old rates have become too heavy for the trade or the industry to bear. The transport charges now bear a much higher percentage of the total charges than before. Much of this increase, the traffic cannot bear and so it is gradually gravitating to the lorries. No wonder, traffic has seriously declined. With the fall in prices, rates should have been reduced long ago. But this was never done. The railways did just the opposite, *viz.*, they increased the level of rates, fares and freights. The present freights operate as too heavy a tax on our agriculture and our manufactures. With the fall in prices the cost per ton mile and the cost per passenger mile should have been lowered.

Railway receipts depend on the volume of traffic, the average lead, and the average charges. Receipts cannot increase by merely increasing the rates if the volume of traffic or the lead declines. The increase in railway rates, freights and fares—first imposed as an emergency measure during the War—has continued far too long even though the general price level now is very much below the war time level. Until prices rise again, any further increase in such charges would prove disastrous. The fall in prices—especially of coal and other railway materials—should have appreciably lowered the working expenses and charges of the railways. By reducing rates and charges they could have attracted more traffic. A policy of real courage and long vision is needed to pull them out of their present difficulties. Group or Zones rates as tried in England might well be tried in India as well. The very fact that traffic was falling so rapidly was the best evidence that the charges were too high for the traffic to bear.

In every business, in every part of the world, rationalisation has been and is being carried out ceaselessly for the last 25 years or more. This has everywhere helped to minimise costs and to maximise efficiency and output. The Indian railways should have started rationalisation long ago but they quietly slept over it until the Acworth Committee revealed the deplorable depths of deterioration to which our railways had sunk. This is the inevitable result of a monopoly—particularly a state monopoly. The monopolist generally feels that rationalization is an unnecessary luxury for him and he can therefore do without it. It is only recently that our railways are moving in the matter but there is still considerable room for rationalization which should not be neglected. The recent enquiry by Mr. Pope and his recommendations relating to job analysis with a view to further economies would be very valuable. There is room for improvement everywhere. Better grouping, the abolition or amalgamation of duplicate or parallel lines operating in the same area, better classification of rates, the starting of railway motors in areas still untapped, reduced rates and fares, cheaper and more attractive week-end and holiday concessions, special terms for transport of particular goods, door to door delivery of goods, introduction of more frequent services and the speeding up of services, introduction of rail cars and sentinel coaches, the introduction of the container system—as in England—the establishment of out-agencies—all these and a host of other methods have been successfully tried in other countries to rationalise the railways and to increase their efficiency. They might be tried in India as well. It is only recently that our railways have started looking into it. Sir Otto

Niemeyer held that a complete overhaul of railway expenditure was necessary for the success of provincial autonomy (Para. 31 (2)). The early distribution of income-tax receipts from the centre to the provinces will depend on the rapid rehabilitation of railway finance. There is, therefore, an urgent need of a thorough-going enquiry by independent experts to suggest other ways and methods of rationalization and economy by which the deficits can be covered and the railways would become solvent again. It should also look into the question of over-capitalisation and the rates of interest that we have to pay.

It is sometimes argued that railways would be perfectly solvent if the general budget were to assume certain liabilities which now fall on the railways but which should, in fairness, be borne by the general budget. For instance, if the cost of the strategic railways—built for military security—is transferred, it will save about Re. 3·3 crores to the railway budget. But, such a transfer would be a mere eyewash—so far as the government and the people are concerned. It would merely shift the deficit from one place to another. The gangrene would remain just as before—only it would shift its centre. That is no reform. It would be no improvement. Further, if the railways can now claim every pie of their dues from the general budget, the tax payer is also entitled to demand that the entire amount paid by him, year after year, for about 60 years in heavy guarantees to make the railways initially successful should now be repaid in full. The Acworth Committee found that from 1858 to 1919 the tax payer paid over £208 millions as guaranteed interest for the railways.² Will the railways agree to repay? Let us be quits on both sides!

It is said that railways would be more profitable if the general budget were to pay the usual charges for the bulk traffic that railways carry for the Government departments. At present, the general budget pays less than the public rates charged on such traffic. This demand is perfectly fair and legitimate and it should certainly be conceded without delay.

The railways also point out that they have to lay and maintain their own permanent track at a heavy expense whereas the motor transport uses the road provided for them from public revenues. But motor transport yields a total revenue of about Rs. 10 crores annually to the Government and it is not correct to say that it is using the roads without payment. Moreover, the motors are not the only users of such roads and more damage is

² *Vide* Report, Appendix 3, p. 99.

done to the roads by carts than by the motor lorries. When however, the railways complain that the motor lorries by overloading can quote cheaper rates, they are probably right. We refer to this point elsewhere.

The problem of ticketless travel has become very serious in railways in recent years. A new law has just been passed to combat with the evil and, no doubt, it will improve the position to a great extent. Along with it, the abuse of free passes in the railways has also grown considerably. Every railway servant is entitled to a free pass—not merely for himself but also for his family. What is more, railway servants who on their own account would travel only in the third class are provided with Inter Class or even Second Class passes to the great inconvenience of the paying public. The list of officers provided with saloons, free passes, special carriages and special trains needs drastic revision. Stricter control and supervision are needed to prevent the abuse of these concessions.

There is a general impression amongst the public that railways pay unnecessarily heavy charges for their stores, materials and accessories. In their own interest, as well as in the interest of the tax payer an independent examination of all railway contracts is greatly desirable and such examination might lead to substantial economies. Railway stores should be purchased, as far as possible, in India to ensure economy.

The railways should also carefully re-examine the scope and possibility of further retrenchment so as to reduce the working expenses. Economy is, in itself, a great income. The staff has been appreciably reduced in recent years but it is only the low-paid staff that has been retrenched—not the high-paid ones. There might be further room for the retrenchment of the staff which an expert enquiry might reveal. Greater Indianisation of the staff would reduce the Wage considerably and the railways must accept this policy whole-heartedly in the case of the high-paid staff so as to reduce working expenses appreciably. The working expenses still wash out about 65 per cent of the railway receipts. The operating ratio of the working expenses to gross earnings is still high—though there has been some improvement in recent years. Every attempt should be made to reduce it still further. The cost of the staff makes up the largest part of the working expenses. No commercial organisation can hope to pay its way with such a heavy charge for its establishment. The increase in salaries and allowances introduced since 1920 on account of high prices continued far too long even though prices have fallen considerably since then. The recent reductions in

the scales of pay apply only to new entrants and therefore its effect cannot be immediately felt.

Lastly, the possibilities of reducing interest charges on our borrowed capital should be fully explored and utilised. This might have been done long ago and it has already been done in other countries. Capital is now so cheap that it would be folly not to take the fullest advantage of it. Until and unless all these steps are taken, it is useless to pretend that we are running our railways as a commercial organisation.

The Benefits of Motor Transport.

We have already discussed the special advantages of motor transport to the public and to the trade. It cannot be denied that it has provided the country with an alternative means of transport which is at once cheap and convenient. It has helped the railways by opening up undeveloped areas which act as feeders to the railway in passenger and goods. It is opening up and developing the country-side—specially those parts of it which are beyond the reach of the railways. As such, it has considerably helped the agriculturalist and the villager by linking the village with the cities. It has induced thousands of people to travel who formerly never moved beyond the limits of the village. It has thus changed the entire outlook of the illiterate villagers and considerably widened his physical and mental horizon. It has given rise to a large number of subsidiary industries and it has given employment to a large number of people. A large amount of capital is invested in this industry. It is yielding a handsome revenue to the Government in rates and taxes, customs and petrol duty. Lastly, it has brought about competitive rates and it has forced the railways to lower their charges. But for the competition of motor transport, railway charges would have been higher than what they are. It has thus rescued the country from the domination of a monopoly. Wherever motor transport has come, the old monopoly has been forced, in self-interest, to improve itself so as to retain the goodwill of its customers. The Calcutta Tramway Company is a case in point. Before the advent of motor transport, its fares were high, its service was bad and its speed was slow. It cared little for the comforts or the convenience of the passengers and its treatment of the public was both haughty and indifferent. Now, the whole thing is changed. It has improved considerably in every respect. All this, the public owes to the competition of motor transport.

Such are the benefits of motor transport to India. And yet, we must remember this industry had to establish itself in spite of serious difficulties. It bears much heavier depreciation than the railway. Its fuel—petrol—has to pay a duty of 10 annas per gallon and already there is the threat of a further rise in it. It has to bear heavy customs duty on its vehicles and other materials and accessories which add considerably both to its capital cost and its working expenses.

Control of Motor Transport.

We can at once concede that in spite of its many advantages, motor transport is very badly in need of reform. There are very substantial reasons why it should be improved and controlled. Public safety must be the first consideration. A reasonable standard of safety and convenience must be insisted upon in the buses that are allowed to run. All old, rickety and dangerous vehicles must be compulsorily scrapped and there must be regular supervision and inspection in order to enforce it. A standardisation of the buses would be desirable in the interest of public safety and convenience. It would be necessary to prevent overcrowding—and this applies to railways also—and overloading. Drivers ought to be subject to a strict medical examination and an efficiency test before they are allowed to drive. A language test should be imposed upon the conductor, who must be able to talk freely in the local language of the place. The payment of fair wages should be provided for and hours of work must be regulated. There should be some control on rates and fares which must be reasonable. Regularity of service must be enforced and it would be equally necessary to provide for an equi-marginal distribution of transport routes so that all parts of the country are adequately supplied—but not over-supplied—with service. There must be neither too much nor too little of it. At present, there are some areas where the facilities have reached saturation point leading to uneconomic and wasteful competition while in other areas there are not enough to go round.

The Remedy proposed by Government.

Such being the broad outlines of the problem, the country has to find a real remedy for it. The remedy proposed by the Government in the new bill before the legislature has been very strongly attacked as very unfair to the motor industry. By controls, restrictions, licenses, regional and route limitations it

will effectively throttle motor competition. By increasing the cost of operating motor transport it will make it very difficult for the industry to compete with the railways. The Government, it is complained, is looking at the problem from the point of view of the railways alone because it is financially interested in them. It is cooperating with one competitor in order to drive the other out of the field. The problem of transport is vital to the economic well-being of a country and yet, instead of the problem being examined in the larger interest of the country as a whole the entire issue is being judged from the point of view of balancing the railway budget. If the railway capital is to be saved from becoming dead capital, what about the large capital invested in the automobile industry? It is one against the other and yet both belong to the people—though one is much greater in volume than the other, largely because it came earlier in the field. The remedy proposed by the Government will have serious repercussions on the economic life of the country. In order to avoid uneconomic competition—it is argued—it is neither necessary nor desirable to limit the number of vehicles in any area or route because on account of internal competition it cannot exceed an economic number. Further, a considerable portion of the motor traffic is strictly local and is not competitive with rail. This traffic will suffer needlessly. India is a vast country and anything which tends to curtail the transport facilities should be carefully avoided. The compulsory insurance against third party and passenger risks is certainly fair and desirable but as public carriers the principle should apply to railways as well.

The real solution of the problem lies not in stifling the competition of motor transport but in improving the railways so as to attract more traffic. If the people won't seek the railways, it is for the railways to seek the people. For about 80 years, railways have enjoyed a monopoly in transport. Safe behind the monopoly, they have never cared to suit their service to the needs and comforts of the public and its trade. Now, because of motor competition, they have been forced to descend from their lordly attitude. Clean and healthy competition makes for progress. It is a boon to the public. It is necessary to bring out the best in both so that the public might get the maximum of efficiency and service at the minimum of cost. Nothing is gained by stifling the competition of one in order to help the other. The railways must remember that they were started in India under heavy state guarantees which no other industry had received. It seems they have an unlimited passion for state assistance. The railways are proceeding on wrong lines. Instead of suppressing competi-

tion they should try to be more serviceable to the community by ways indicated above. Given the will to do it, the railways can certainly economise substantially and yet offer the public an efficient service. Has any serious attempt ever been made for it? Have they so far really tried to find out why the traffic is seeking new routes? Their extravagant and top-heavy administration continues as before. The motors can beat the railways because the railways are not efficient enough to meet the motors. Within recent years, as a result of motor competition, the railways have been forced to lower their rates and improve their services. They are now trying strenuously to attract more traffic. The competition has thus increased the economic welfare of the country. If this competition is now forcibly removed, railways will become the autocrats of the situation. Rates and freights will be raised at once to the great hardship of the people and the trade. It will make the railways more inefficient more apathetic to the needs of reform and less responsive to the wishes of the people. The railways instead of putting their own houses in order—which every commercial organisation would do at once—are trying to throttle the only competitor with the help of the state. They want to take things easy. Until the railways have taken every step to improve their efficiency and reduce costs they have no right to talk loud about unfair competition or to ask that motor transport should be controlled. In the wider and greater economic interest of the country a competitive service should not be washed out. If railways cannot fight on competitive terms, they cease to be economical. They cannot coerce the people into using the railways. It is the competition of the railway which has now become uneconomic and wasteful. To protect them would be to stereo-type inefficiency and to aggravate waste. We cannot deny the country the benefits of modern scientific transport merely to protect the past investments of the railways. Transportation is civilisation. The railways cannot be permitted to deny to India the advantages of improved motor transport merely because they themselves cannot or will not improve. For a century they had the monopoly of transport and they want to continue it by pushing out of the field every new rival. They ask for co-ordination but to them co-ordination means restricting the efficient newcomer with brainy ideas and protecting the inefficient monopolist who cannot or will not improve. It is only fair to eliminate unfair and predatory competition—of which both motor lorries and railways may be equally guilty. If it would be madness to cripple the railways, it would be equally so to cripple the motor transport industry in the country.

Lines of Coordinated Control.

Frankly, India cannot afford to do without either the one or the other. We need both—competitive with or complementary to one another. The most sensible planning will be firstly, to insist upon the maximum of efficiency in both and then—but only then—to lay down an economic division of traffic between the two in the interest of the country as a whole. The following tentative suggestions are made to indicate the possible lines of coordination, but it will be quite easy to improve upon them in other ways:—

- (a) Short distance traffic may be confined to motors while long distance traffic may go by rail. On the main routes where a good spread of overhead charges can be obtained through a traffic approaching the optimum for the line, railway costs will be lower and therefore the railway would be the better method of transport.³
- (b) Regular and limited flow of traffic may be reserved for motors while sudden rush of heavy traffic (e.g., in melas, fairs, etc.) must go by rail.
- (c) Light goods may go by motor while heavy goods must go by rail.
- (d) In the interior parts of the country where there are no railways, motors must naturally carry the entire traffic in goods and passengers.
- (e) Military purposes must be served by rail, while ordinary civil purposes may be served, as far as possible, by motors.
- (f) For higher class passengers, railways would be more suitable as they would be able to provide much greater comforts while for lower class passengers, motors would be quite suitable.
- (g) In the future, before any new railway line is constructed the question must be considered on its merits as to whether the area would be best served by rail or motor. A licence to build the line will be given either to one or the other but not to both. If the capital so far invested in railways is already in jeopardy, why jeopardise more of it? In the planned coordination of the future let us assign

to each its proper place. It is only then that India can have the best of both.

In order to coordinate successfully, a Federal Transport Board should control all the different systems of transport in the country. It should contain representatives of all interests including the Government and the public. It should regulate routes so as to link up one route with another or one route with a railway rather than allow a needless duplication of transport by the motor and the rail both running parallel to each other. It should be the duty of the Federal Board to allocate and distribute traffic between the different units and interests concerned.

RECENT TARIFF POLICY IN INDIA

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The most important development in the Tariff Policy of India during recent years has been the introduction of what is called a 'two-decker' tariff with a view to giving practical form to the idea of tariff reciprocity with the United Kingdom. This development is not the logical outcome of a process of historical evolution, nor the result of a gradual crystallization of opinion on the issue, but has come about with dramatic suddenness. Ever since 1903, when Lord Curzon's Government had expressed themselves against India's participation in a scheme of tariff preference within the Empire on the ground that the balance of advantage to India was distinctly adverse, on each successive occasion when the question demanded attention, the Government of India explained the difficulties which stood in the way of India adopting such a general scheme. Thus the spokesmen of India opposed the proposal of preferential tariffs on the occasion of each of the Imperial conferences of 1907, 1911, 1923, 1926 and 1930. The Majority of the Indian Fiscal Commission which examined the question in 1922 were of the view that "any general system of preference would undoubtedly impose an appreciable burden on the Indian consumer, which we do not think it fair that he should be called upon to bear."¹ The Indian Delegation thus summarise the attitude of the Government of India to this question since 1923:—

- (1) It was not clear that India had much to gain from the adoption of a general scheme of tariff preference within the Empire.
- (2) There were undoubted difficulties about India's participation in any such scheme, difficulties arising both from the policy of discriminating protection,

¹ Report, p. 116.

and from the importance of the customs head as a source of central revenues.

- (3) On balance there were no sufficient grounds why India should support a scheme of the kind indicated.²

Despite this attitude of consistent opposition by the Government of India to the introduction of Imperial preference into the Indian Tariff system, we find a comprehensive scheme of general tariff preferences in actual operation. This drastic reversal is accounted for by the change in the fiscal policy of the United Kingdom. The Import Duties Act was passed early in 1932, imposing a general duty of 10 per cent on most imports, with a provision exempting the products of the Dominions and India from the operation of the general duty until the 15th November, 1932, after which no guarantee of the continuance of free entry for their products could be given, unless in the meantime they could conclude satisfactory reciprocal tariff arrangements with the United Kingdom.

The Indian Delegation lay re-iterated emphasis on the fact that a refusal to negotiate arrangements for tariff reciprocity would have spelt certain disaster for our export trade to the countries of the Empire. It may be admitted that a refusal to negotiate would have been inexpedient and possibly harmful. It is difficult nevertheless to resist the conclusion that the Indian Delegation were too much overpowered with a sense of the vulnerability of India's situation and too little conscious of its strength. They would appear to have considerably under-estimated the bargaining power of India, and to have conceived her situation to be indeed pathetically critical and helpless. Such an attitude was hardly justifiable, but the action of the Delegation may now be viewed in the light of its results.

We shall limit our scope to a few broad observations on some of the results of the new policy of tariff differentiation inaugurated at Ottawa both in its general application and in its application to the particular cases of Steel and Cotton.

I—EXPORTS

Tendencies of Export Trade.

The tendencies of our export trade before and after Ottawa may be considered first.

² Report, p. 7.

EXPORTS FROM INDIA

(in crores of rupees)

	1928-29	1929-30	1930-31	1931-32	1932-33	1933-34	1934-35	1935-36
Total	330'1	310'8	220'5	155'9	132'3	146'3	151'2	160'5
To U.K.	69'0	66'6	51'8	42'9	36'8	47'2	47'8	49'8
Percentage to U.K.	20'9	21'4	23'5	27'5	27'8	32'3	31'6	31'0

It will be seen that the tendency to *increasing* dependence on the United Kingdom market did not *originate* with the grant of preferences to our exports in that country. Already before the passing of the Import Duties Act that tendency was very marked, and during the two years of depression from 1929 to 1931 there was a considerable increase in the proportion of our exports destined for the United Kingdom. Viewed in the light of the trend of our trade during the immediately preceding period, the events after Ottawa do not appear to have been characterized by any striking new development. We have only the *continuation* of a tendency which started with the downward turn of the trade cycle. Since the tendency was already very strong, it is reasonable to expect that it might have continued to operate for some time and in some degree at least even had there been no agreement, so long as the other factors responsible for it continued to work. As it was, the agreement probably *accelerated* that tendency to a small extent. It will be noticed that this tendency which became suddenly pronounced with the onset of the Depression, has already been reversed to some extent, and as recovery spreads, our foreign markets are again showing signs of greater expansion than the U. K. The United Kingdom share of our exports has been declining during the last two years.

The Factors at Work : Stability of U. K. Demand.

What were the factors which accounted for a continued increase in the share of the United Kingdom in our export trade from 1928-29 to 1933-34? The depression itself would appear to have been an important factor in altering the direction of our trade from 1929-30 to 1931-32. During the two years not only the total value of our exports was halved, (declining from 311 crores to 156 crores) but an appreciably higher proportion of this greatly reduced total trade was directed to the United Kingdom. This of course meant a smaller relative rate of contraction of the

United Kingdom market than of other markets due, it may be said, to the comparative stability of the United Kingdom demand. The remarkable tenacity of the demand of that country for imports is indeed evidenced by the trade statistics of almost every country of the world. The United Kingdom's share of the total value of the world's import trade rose from 15·19 per cent in 1929 to 17·24 in 1931. Indeed, in the case of 23 European countries, exports to the United Kingdom formed a larger proportion of their total exports in 1931 than in 1929, and this increase in the relative share of the United Kingdom was appreciable in most cases.³ So also all the countries in Asia and Oceania for which statistics are available to us, with slight exceptions,⁴ show an increase in the proportion of their exports consigned to the United Kingdom in 1931 over 1929. Similarly 18 out of 21 countries on the American continent show increases in the proportion of their exports sent to the United Kingdom over the first two years of the depression. (Source: International Trade Statistics, 1934, L. O. N. series.) The increased dependence of India on the United Kingdom market was therefore no unique fact but only part of a general tendency.

Exchange Stability.

The variety and complexity of the factors at work increased after 1931. Certain factors, however, stand out as clearly making for closer trading relationships between the United Kingdom and India. One such outstanding factor has been the maintenance of a stable exchange between the two countries, at a time when trade with foreign countries was being strangled by chronic instability of exchanges and uncertainty of prices. The membership of the sterling area⁵ conferred a two-fold benefit. Currency depreciation relieved the countries concerned of the severe strain to which their economic structures had been subjected by the powerful downward pull of a declining international price level. But "apart from the closer adjustment of domestic costs to world prices achieved by members of this group through currency

³ The only countries showing decreases in the proportion of their exports consigned to the United Kingdom were Bulgaria, Estonia, Latvia and Turkey, the decreases being slight in all cases, while in the case of Portugal the proportion was maintained with a negligible decline from 23·4 to 23·3 per cent.

⁴ China shows a slight decline from 7·2 per cent to 7 per cent, and Phillipines from 4·3 to 4 per cent

⁵ No opinion is here implied that a further depreciation of the rupee in relation to sterling would have been either injurious or its opposite.

depreciation, the expansion of the trade of the sterling group may, to an important extent, also be ascribed to the fact that this group represents a wide area of mutually fixed exchange rates and that trade between members of the group has consequently been relatively little hampered by the risk of exchange fluctuations."⁶

Industrial Recovery in U. K.

Again, the proportion of our exports going to the United Kingdom must have received a fillip from the appreciable recovery in the home industries in that country which followed upon the considerable contraction of foreign imports of manufactured goods, and from the marked revival of the imports of raw materials in consequence into that country. It is significant that imports of 'raw materials and articles mainly unmanufactured' into the United Kingdom⁷ were higher in 1935 than in 1931 by no less than £39 millions, an increase of nearly 22 per cent, and higher in the same year than in 1932 by £47 millions, an increase of over 28 per cent. The following table strikingly brings out the decline and recovery in the quantum of imports of 'materials, raw and partly manufactured' into a few most important industrial countries.⁸

		<i>Quantum.</i>			
		1929=100			
		1929	1932	1934	1935
U.K.	..	100	85'7	100'9	101'6
United States	..	100	55'8	60'0	72'9
Germany	..	100	73'7	82'1	78'5
France	..	100	79'5	76'6	75'9

The raw material imports into the United Kingdom clearly declined less during the depression than imports into either of the other countries, and have increased more during the subsequent period of recovery than similar imports into either Germany or France.

⁶ *Review of World Trade*, 1935, p. 60.

⁷ Source : *Accounts relating to the Trade and Navigation of the U. K. for December, 1935.*

⁸ *Review of World Trade*, 1935, p. 29, Table V.

The indices of the quantum of imports of food-stuffs are likewise interesting.⁹

Quantum of Foodstuffs Imports.

		1929=100			
		1929	1932	1934	1935
U.K.	..	100	105'5	104'0	103'1
U.S.A.	..	100	75'9	92'5	109'8
Germany	..	100	74'1	63'1	56'0
France	..	100	125'7	96'6	92'2

The imports into the United Kingdom have been more than maintained all through the depression, while imports into Germany have suffered a drastic restriction.

That the increased proportion of our exports directed to United Kingdom was very greatly encouraged by the revival of demand for raw materials in the United Kingdom is also clear from the following increases in the exports of commodities to the United Kingdom, which did not receive any tariff preference in that country.

EXPORTS TO THE UNITED KINGDOM RS. (00,000).

		1931-32	1935-36	Increase in 1935-36 over 1931-32
Saltpetre ..	..	1'9	3'7	+1'8
Cutch and Gambier ..	..	2'2	2'4	+0'2
Fibre for Brushes and Brooms ..	..	3'5	3'8	+0'3
Fruits and Vegetable ..	..	1'4	7'4	+6'0
Cow Hides ..	..	3'6	11'8	+8'2
Sheep Skins ..	..	1'0	4'0	+3'0
Kapok ..	..	1'2	2'9	+1'7
Manganese Ore ..	..	16'1	38'6	+22'5
Wolfram Ore ..	..	56'2	127'1	+70'9
Mica ..	..	21'6	38'5	+16'9
Provisions and Oilman's Stores ..	..	7'4	5'2	-2'2
Rubber, raw ..	..	26'9	31'9	+5'0
Rapeseed ..	..	19'0	2'9	-16'1
TOTAL ..	..	1,62'0	2,80'2	+1,18'2 (1)
<i>Index</i> ..	..	<i>100</i>	<i>173</i>	

⁹ *Ibid.*, p. 29.

TEXTILES:

TEXTILES.				
Cotton raw	..	1,53'9	4,50'6	+ 2,96'7
Hemp raw	..	3'6	17'2	+ 13'6
Jute raw	..	3,11'0	2,96'0	- 15'0
Wool raw	..	2,49'5	1,37'9	- 1,11'6
		<hr/>	<hr/>	<hr/>
TOTAL TEXTILES	..	7,28'0	9,01'7	+ 1,73'7 (2)
		<hr/>	<hr/>	<hr/>
TOTAL	..	8,90'0	11,81'9	+ 2,91'9 (1) + (2)
Index	..	100	133	

The commodities included in the above table formed in 1931-32, 95 per cent in value of all commodities *not enjoying preference* in the United Kingdom.

There was an increase of one-third or 33 per cent in the value of exports not enjoying preference from 1931-32 to 1935-36. This compares with an index with 1931-32 as base, of 116 in 1935-36 for all exports inclusive of those enjoying preference. The increase of preferred exports was comparatively much smaller than the increase of non-preferred exports to the United Kingdom. This does not show at least that the preference on our exports was a specially important factor in modifying the trends of trade to our advantage. It appears, on the contrary, that the preference was of much less importance in its effect on the trends of trade than the other powerful factors which were either already operating, or came into operation almost simultaneously with the introduction of the preferences.

II. IMPORTS

Of the total imports into India which received preference in 1931-32, valued at 308 crores of rupees, only 12·6 crores or 41 per cent were derived from the United Kingdom. The corresponding proportion for 1932-33 was 40 per cent. So that the greater part of the goods receiving preference were imported from foreign countries. In the case of 43 per cent of the preferred imports, only 27 per cent or somewhat over a quarter were supplied by the United Kingdom, nearly three quarters coming from foreign countries. And in the case of another 37 per cent, 43 per cent were provided by the United Kingdom. All together in the case of 80 per cent of the total preferred imports, only a little over one-third were imported from the United Kingdom and nearly two-thirds from foreign countries.

A well-known authority on tariff matters has remarked that "a country will not often accept a loss of revenue and transfer a gain to foreign producers by remitting a duty on a portion only of its imports."¹⁰ Again, "if one indispensable part of the supply is taxed, the price of the whole commodity goes up. Those producers who are exempt pocket the tax . . . the duty will tax the home public and put money into the pockets of the foreign producer."¹¹

Prices of Preferred Imports.

The Report on the working of the scheme of preferences prepared by the Government gives certain statistics of the prices of imported commodities subject to differential rates of duty. The trend of the prices at ports of the preferred articles appears on the whole to be slightly downward since the Ottawa Agreement came into operation. The consumer does appear to be better off than he was before the Ottawa Agreement. This, however, proves nothing as to whether he would have been better or worse off than he is now if the Agreement had not been in operation. But the Report of Dr. Meek¹² (hereafter referred to as The Report), seeks to ascribe the relatively favourable plight of the consumer after Ottawa to the granting of preferences to the goods of the United Kingdom, by a simultaneously raising of the duty against foreign goods and its lowering in favour of the United Kingdom. Attention is drawn to the Finance Member's remark on 6th December, 1932 in the Legislative Assembly to the effect that the result of such an arrangement would be that "Competition will tend to reduce the prices at which foreign goods are sold to the level of the British goods, and that in the long run the tendency will be that the consumer will benefit from these changes."¹³ 'These remarks,' the Report observes, 'bring out the chief reasons why the consumer has not been adversely affected by the new preferential duties.' It appears as if experience contradicts the theory of the incidence of differential duties.

But the lessons of the experience are by no means at variance with the results of theory. The Report itself recognises that a

10 Taussig, F. W. : *Free Trade, The Tariff and Reciprocity*, p. 126.

11 *Ibid.*, p. 127.

12 First report on the working of the Scheme of preferences for the fiscal year 1933-34.

13 *Ibid.*, p. 151.

rise of prices should normally have been expected to follow from the readjustment of duties. 'One might expect that, other things being equal, this (the increase in the duty on foreign articles) should lead to a rise of prices but the effects have been otherwise. The reasons for this lie (1) chiefly in the present state of the world markets,' 'when every country is trying its hardest even sometimes at considerable sacrifice to retain the existing market.' Again, (2) sometimes prices of preferential articles have been reduced, and the loss sustained on them has been made good by an increase of prices of non-preferential articles. Moreover, (3) home markets sheltered adequately against foreign competition afford special facility for price differentiation or price cutting abroad.¹⁴ Finally, (4) 'the price reduction may have been effected by imperceptibly reducing the quality of the supplies.'

None of these statements except (3) invalidates the expectation that a rise of duty on the more important part of the supplies should *normally* lead to a rise in the price of the commodity concerned, involving a burden on the consumer disproportionate to the amount of revenue accruing to the Treasury of the state.

Deficiency in Statistics.

Moreover, although the fact of a decline in the prices at port of articles subject to differential rates of duty may be admitted, it is not possible to say whether that decline has been due to the fact of tariff differentiation or has been part of a general tendency, unless we know what has happened to the prices of goods which are *not* subjected to differential rates of duty but continue to be admitted as before at uniform rates of duty. No statistics about the prices of such articles have been collected and this deficiency considerably detracts from the value of the statistics which have been collected about the prices of the preferred articles. It is only by a comparative examination of the statistics for both sets of articles that we can eliminate, as far as possible, the influence of general factors, common to both, and judge with some approximation to accuracy the effect of tariff differentiation on the prices

¹⁴ The special motive for price-cutting abroad is of course furnished in great part by the exceptional state of the world markets, though the special facility for price differentiation referred to may be regarded as a broad characteristic of present day organisation of industry, and therefore more or less permanent. The exercise of that facility may however be particularly accentuated under the present exceptional conditions.

of preferred articles. Without comparable statistics for the prices of non-preferred articles, no valid deductions as to the causes of a price movement in the case of the preferred articles can be drawn. Hence there is urgent need for a collection of the statistics of the prices of all imported commodities, whether subjected to differential or uniform rates of duty.

Alternative Price Indices.

In the absence of the necessary data¹⁵ about the prices of all imported articles, we have to fall back upon other indices of the general price movement of the type of goods that receive preference in India. The Report gives the index numbers of wholesale prices in a number of important industrial countries and after observing that prices have on the whole been more or less steady in the sterling group of countries goes on to say: "From this it may be concluded that a reduction in prices of preferential and non-preferential goods¹⁶ in India could not be wholly due to a great fall in the general price level especially in countries in the sterling group." The inference is not quite valid from the premises. For the general price indices which may be taken as the best available equivalent to the prices of preferred imported articles are not the indices of wholesale prices, but those relating to the prices of exported manufactured goods, which would generally be lower than wholesale prices, having regard to the following three circumstances:—(1) The indices of wholesale prices include prices of non-competitive domestic goods which would generally be higher at a time of falling international prices than the prices of competitive and internationally traded goods. (2) Wholesale prices include other goods than manufactures and the prices of the former may have shown a tendency to rise, thus neutralising a tendency to falling prices in the case of manufac-

¹⁵ We realize no doubt that the Department of statistics in collecting the statistical information relating to prices have only been carrying out the recommendation of the Special Committee appointed by the Legislative Assembly to scrutinize and report on the Ottawa Trade Agreement, as follows:—"We recommend that following the introduction of the new rates of duty, a careful watch should be maintained by the Government upon the course of prices of imported articles *which have been subjected to differential rates of duty in accordance with the Agreement.*" (*Italics ours.*)

¹⁶ Both of these refer to preferred articles, preferential goods of course meaning British goods, and non-preferential goods, the foreign or non-British goods. Non-preferred articles are thus quite distinct from non-preferential; they are subjected to uniform rates of duty on importation from all countries.

tures. (3) Even if we consider the manufactured goods alone, their prices are likely to be higher at home than abroad. The tendency of export prices to be constantly below the domestic prices of manufactures has been remarked by Prof. Bertil Ohlin,¹⁷ and is also referred to by the Report as one important cause of the fall in the prices of preferred imports.¹⁸

What is strictly relevant to our inquiry is, however, not whether the prices of manufactured exports have been at a *lower level* than whole prices in general, but whether they have been actually falling during the period of operation of the differential duties in India, *i.e.*, after 1932. The following table gives the indices of the price level of imported goods in the case of certain agricultural countries. Since the bulk of imports into these countries consist of manufactured articles, the indices afford a rough indication of the trend of prices in this class of goods.

INDEX NUMBERS OF PRICES OF IMPORTS INTO CERTAIN COUNTRIES.¹⁹

	1927	1932	1933	1934	1935
Irish Free State ..	100	72'5(52'6)	..	67'2(41'5)	..
Finland ..	100	76'2(46'7)	..	..	68'9(35'0)
Latvia ..	100	70'9	..	..	68'2
Yugoslavia ..	100	70'2(65'1)	76'4	..	71'2(55'0)
Chile ..	100	70'5	..	..	41'8
Netherlands Indies	100	59'5	..	..	44'9
China ..	100	111'4(53'1)	..	95'5(43'4)	..
French ..	100	72'6(56'6)	..	59'9(46'7)	..
Indo-China ..					
India ..					
	100	60'3(43'4)	..	56'6(34'4)	..

The variety of currency systems in the countries enumerated above as well as the complexity of other factors makes any facile deduction as to the causes of particular price declines difficult, but the general trend is unmistakable. The price index num-

¹⁷ "The author's impression is that, at least since the War, a substantial part of international trade in manufactured goods, but not in raw materials or food, has been characterised by lower prices in foreign than in home markets." *Interregional and International Trade*, p. 292.

¹⁸ "In the present economic world with its high tariffs the manufacturer is assured of his home market. From that market he hopes to make a considerable profit as the competitions from foreign sources is negligible. After meeting the demand of his home market whatever remains is more or less in the nature of surplus to him and this surplus he can afford to sell even at a considerable sacrifice and in some cases actually at prices in the foreign market below those in the home market." *Report*, p. 15.

¹⁹ Source : *Review of World Trade*, 1935, Annex 1.

bers given in brackets refer to prices in gold currency. The tendency to a fall of the import price level is even more pronounced in terms of gold than in terms of national currencies.

That there was a tendency after 1932 to a relatively greater fall in the prices of manufactured goods entering into international trade than in the prices of raw materials and food stuffs, is clearly brought out by the following figures showing the movement of average prices of articles belonging to three broad groups:—

PRICE MOVEMENT²⁰ (1929=100).

	1929	1932	1933	1934	1935
Food Stuffs ..	100	52	45.1	41	40
Raw Materials ..	100	44	40.5	39	39
Manufactured Articles ..	100	64	55.5	49.5	48

From 1932 to 1935 there was a fall in the gold price level of 25 per cent in the case of manufactured articles, of 11 per cent in the case of raw materials, and of nearly 23 per cent in the case of food stuffs.

DEPRECIATION OF INDIAN EXCHANGE.²¹

1929=100.

1929	1932	1933	1934	1935
100	72.2	68.2	61.8	60.1

The depreciation of Indian exchange between 1932 and 1935 was between 16 and 17 per cent. If the fall in the c. i. f. gold price level of preferred articles imported into India were commensurate with the fall in the prices of manufactured articles in general, and if the prices at ports of these articles directly and instantaneously responded to fluctuations in the Indian exchange, a decline of 10 per cent should be expected in the index of their rupee prices from 1932 to 1935, no changes in tariffs being assumed.²² This, of course, is a very crude and rough

²⁰ *Ibid.*, p. 15.

²¹ Statistical Year Book of the League of Nations, 1935-36, p. 236, Table 122.

²² A decline of 25 per cent in the gold price level means that prices were $\frac{3}{4}$ th in 1935 of what they were in 1932. But the Indian currency also depreciated to $\frac{5}{6}$ ths in 1935 of what it was in 1932. The gold prices when expressed in terms of the Indian currency should be increased to $\frac{6}{5}$ ths of what they are at any moment, i.e., in exact but inverse proportion to the change in the exchange value of the currency unit. The prices in terms of rupees would therefore be $\frac{3}{4} \times \frac{6}{5} = \frac{9}{10}$ ths of what they were in 1932. In terms of percentages the calculation would be $\frac{75}{100} \times \frac{120}{100} = \frac{90}{100}$ or 90 per cent.

method of ascertaining what the trend of import prices at ports would have been in the absence of tariff differentiation, but the lack of data relating to prices of non-preferred imports, compels resort to some such method. The above calculation shows, for what it is worth, that prices of imports would have declined anyhow, even if the tariff on United Kingdom goods had not been slightly lowered and that on foreign goods slightly raised. Whether the degree of that decline would have been greater, or less than the actual decline under differential duties, is not possible to say on the information at our disposal.

III. STEEL

Having dealt with some general aspects of the policy of tariff preference, we come to a consideration of what are known as 'differential duties' in the special cases of Steel and Cotton. Such duties were introduced into the Indian Tariff by the Iron and Steel Industry Protection Act, 1927 and the Cotton Textile Industry (Protection) Act of 1930. "These Acts . . . introduced into the Indian tariff system what was in effect, though not in intention, a preference in favour of British goods. But in both cases the benefit to the United Kingdom was incidental and the differentiation in the duties was held to be justified purely in the interests of India." The differential duties have since been granted a fresh lease of life by two later acts.

Steel: Discriminating Protection Vs. Preference.

Taking first the case of the steel industry, we shall restrict our examination to the case of the new differential duties on galvanised sheet imports imposed by the Iron and Steel Industry Protection Act, 1934. The fair selling price f. o. r. port of galvanised sheet in India was estimated at Rs. 170 per ton by the Tariff Board on the Indian Iron and Steel Industry. The measure of protection recommended for the Indian industry against the United Kingdom and continental imports respectively was Rs. 10 and Rs. 40 per ton. The recommendations of the Tariff Board have been fully incorporated in the Act of 1934 now in operation. The manner in which the Board arrived at the different scales of duty on British and continental sheets recommended by them is described by them as follows:—

"The duties under our scheme of protection are based generally on the current market prices of British and continental steel. In the case of galvanized sheets, however, we have estimated the duties on a different basis. Since November, 1932, the

price of galvanized sheets has been fixed at an artificial level under the Ottawa Agreement. No direct information is therefore available regarding the level of market prices under ordinary competitive conditions and our estimate of market prices has in consequence to be based on somewhat arbitrary considerations. Two alternative methods have been open to us, first, to take the average price in the earlier half of 1932 and adjust it for the variation in the price of spelter since that period and secondly, to proceed on the basis of calculation adopted by the Ottawa delegation, namely, to take the United Kingdom price at the lowest figure which the Delegation considered would give a reasonable return to the British manufacturer and to take the continental price at the lowest figure actually reached in recent importations. *Under ordinary conditions we should be inclined to adopt the first method in estimating the measure of protection. The United Kingdom prices in that case would be almost the same as continental prices and there would be no scope for differential duties. We have however decided to adopt the other method which is calculated to give the British manufacturer a definite advantage consistently with the interests of the Indian industry. Our object in doing so is to maintain as far as is now possible the principle of reciprocity underlying the Ottawa Agreement relating to galvanized sheets.*" (Report, p. 62.)

The whole of this lengthy quotation is worth perusing very carefully. The significant part has been italicised. *Under ordinary conditions*, as the Board say, they would have been inclined to adopt a method in estimating the measure of protection under which the United Kingdom prices would have been almost the same as continental prices and there would have been no scope for differential duties, i.e., a uniform rate of Rs. 40 per ton would have been imposed on all imported sheets. Presumably under ordinary conditions the Board would have been guided in their calculations solely by the principles of discriminating protection as laid down by the Fiscal Commission. Under ordinary conditions the Board would have taken the average price in the earlier half of 1932 and adjusted it for the variation in the price of spelter since that period in order to arrive at the current market price of British sheets,²³ and it was upon current market prices that the duties under the scheme of protection were generally based. With a view, however, to maintaining as far

²³ One of the reasons for adopting such a procedure would probably have been that 'in British prices (of steel products other than galvanised sheets) there had been little variation in the past few years.' Report of the Tariff Board, p. 58.

as possible, the Ottawa spirit of reciprocity, the Tariff Board recommended a lowering of the duty on British sheets to Rs. 10 per ton, Rs. 30 per ton of sheets being 'the preference granted under our proposals on galvanised sheets.'

It has to be observed, however, that the desirability of maintaining the principle of reciprocity did not lessen in any degree the need for the measure of protection which the Board would otherwise have considered adequate for the industry. The extent of protection required by the Indian industry could not alter because it was necessary to have regard at the same time to the principle of reciprocity. It must, in fairness to the Indian industry and consumer, in fairness to the principles of Discriminating protection, and in fairness too to the Board itself, be submitted that two rates so different in amount as those estimated by the Tariff Board and the Indian Delegation²⁴ could not at one and the same time be regarded as adequate measures of protection for the Indian industry. Obviously, the Board's own estimate being framed presumably with a view only to affording protection to the Indian industry was better calculated to secure that end. The Board, however, give up their own estimate without assigning any reason based on the considerations of discriminating protection—probably because no such reason could be urged in favour of such a step. It is clear that considerations of reciprocity overrode the principles of discriminating protection. The position would have been at least intelligible if the reduction of duty had been suggested on the frank plea that the Board considered the principle of reciprocity to be more important than the principles of discriminating protection, and that the Government too were convinced of the need of promoting this more important principle, if need be, at the expense of protection to the Indian industry. That would have been a perfectly logical mode of procedure and, given the existence of more important ends than protection, a perfectly legitimate mode of procedure. But paradoxically enough, the Board sought to give the British manufacturer 'a

²⁴ The principle of equalising costs of production, i.e., of equalising the fair selling prices in India with the 'reasonable' costs of the British manufacturer which forms the basis of the Delegation's estimate of the U. K. price is very difficult to apply in practice, since an estimate of costs of production in a foreign country can be made only after the most thorough-going examination of the books of foreign concerns (as was done by the Canadian Tariff Board in the case of the Wool and other duties) even when only 'rough and approximate' results can be arrived at. Moreover, the tendency of export prices to be persistently below home prices (c. f., p. 12 above) does not justify the adoption of this method of calculating the rate of duty.

definite advantage' 'consistently with the interests of the Indian industry.'

It is difficult to imagine how this could be brought about. Even the Indian Delegation to Ottawa which could not be accused of being biassed against the spirit of reciprocity found it difficult to reconcile preference with discriminating protection. Thus they observe:

"To concede a preference by reducing these rates (fixed by the Tariff Board after full investigation) to a lower figure in favour of British steel would impair the protection intended by the Legislature to be afforded to the Indian industry, and to raise the duties on foreign steel to a higher point than was required in India's own interest would have been a grave departure from the fundamental principle of the policy of Discriminating Protection. It would have meant that though, when an Indian industry was in question, the consumer ought not to be taxed beyond the extent necessary to give the protection needed, this could be done without objection when a British industry desired to be safeguarded against foreign competition."²⁵ It is clear that preference to the products of a foreign industry cannot be reconciled with protection to the home industry,²⁶ and that preference can only be extended to the imports of a protected article by violating the fundamental principles of discriminating protection. This is precisely what has happened in the case under consideration.

Reciprocity: The Balance Sheet.

Even if we consider the preference on galvanised sheets strictly as a measure of reciprocity, the reciprocal advantage accorded to India is slight compared with the sacrifice involved in the form of 'burden on the consumer' or 'loss of revenue.' It may be remembered that the advantages offered to India in return for the preferential duties on galvanised sheets under the Supplementary (to Ottawa) Agreement regarding Iron and Steel were, first, the exemption from import duty and facilities for the sale of a specified quantity of Indian pig iron in the United Kingdom and, secondly, the provision of a definite market in the United

²⁵ Report, p. 33.

²⁶ cp. Gregory, T. E.: *Tariffs, a study in Method*, p. 295 "A policy of protection for producers in any case involves some check to the flow of competing imports, while the grant of preference will quicken this flow." The flow need not be quickened if the duties are strictly 'differential' and not 'preferential,' but differential duties are open to other objections which are examined in the following section in connection with cotton.

Kingdom for Indian sheet bar. The latter had, however, become of much less importance to India at the time of the Board's inquiry than at the time of the Ottawa Agreement because of the increased capacity for the manufacture of sheets in India and a larger demand for billets from re-rolling mills in India.²⁷ Moreover, the representatives of the British industry had informed the Board that, for their part, they had no particular reason to press for a renewal of the Agreement.²⁸

So that one important consideration in coming to the special supplementary Agreement regarding Iron and Steel had fallen to the ground. That the consideration was indeed very important at the time of the conclusion of the agreement is clear from the following emphatic statement of the Indian Delegation to Ottawa:—

“ If the special arrangements connected with the duties on galvanised sheet were to be acceptable to India, it was indispensable that they should furnish reasonable security that any increase in the sale of British galvanised sheet in India should be accompanied by an equivalent increase in the sales of Indian sheet bar in the United Kingdom. If the duties were so adjusted that the British manufacturer had no inducement to use Indian sheet bar when making sheet for the Indian market it would fail to achieve one of its primary objects, namely, the securing of a fresh outlet for Indian steel. It was impossible to obtain the necessary assurances on this point at Ottawa, and it was on this account that the final settlement had to be postponed until further discussions had taken place in London between the representatives of the British industry and of the Indian industry. As a result of these discussions we have received assurances that the representatives of both industries are satisfied that, with a difference of Rs. 23 a ton between the duty on sheet made in the United Kingdom from Indian sheet bar, and sheet made from other bar, it will be possible to do business at prices satisfactory to both industries, so that the extended use of Indian bar is assured. *That being so*, we are satisfied that the scheme is one which we can recommend for adoption by the Indian Government and Legislature.”^{28a}

The duty free entry of Indian pig iron valued at a little over 19 lakhs of rupees on an average during 1933-34 to 1935-36 remains the only recompense for the considerable sacrifice

²⁷ Report of the Tariff Board, p. 63.

²⁸ *Ibid.*, p. 20.

^{28a} Report of the Indian Delegation, p. 35-36.

involved in the appreciable remission of duty on Indian galvanised sheet imports from the United Kingdom valued at over Rs. 99 lakhs during the same period. The annual loss of revenue involved during the same period by the reduction of duty on the imports from the United Kingdom may be estimated at 16 lakhs of rupees.²⁹ This is approximately the measure of the subsidy granted to the United Kingdom manufacturer of galvanised sheet. The loss of revenue involved by this and other proposals to reduce the level of protection to the Indian industry has been met by an excise *cum* countervailing duty scheme, imposing an excise duty of Rs. 4 per ton on all production of steel in India, with a corresponding addition to the duty on all imports. It may be remarked, however, that while the excise duty when paid constitutes a definite addition to the costs of production and, therefore, the fair selling price of the Indian article, the equivalent import duty may not mean an immediate rise in import prices to a similar extent. The degree of protection may thus be undermined.

IV. COTTON

In the case of Cotton the duty on United Kingdom goods was fixed at 15 per cent and on foreign goods at 20 per cent from 4th April, 1930 by the Cotton Textile Industry (Protection) Act of that year. The duty on British and foreign goods was increased to 20 and 25 per cent³⁰ respectively from 1st March, 1931 and to 25 and 31½ per cent³¹ respectively from September 30, 1931. The duty on British goods continued unaltered from that date to the end of June 1936. The duties on foreign goods having been increased to 50 per cent on August 30, 1932, continued for the most part at that level till the end of June 1936, except for a period of 7 months from June 7, 1933 to January 8, 1934 when they were as high as 75 per cent. The duties of 25 per cent on British goods and of mostly 50 per cent on foreign

²⁹ This loss has been calculated by multiplying the average imports during the three years 1933-34 to 1935-36, i.e., 53.5 thousand tons with the difference (Rs. 30 per ton) between the duty which would have been imposed under ordinary conditions, and which was imposed on other foreign imports, viz., Rs. 40 per ton, and the rate actually imposed on the imports from the United Kingdom, Rs. 10 per ton. Thus $53.5 \times 30 = \text{Rs. } 16.05$ thousand. The same method is used by the Tariff Board for calculating the total loss of revenue involved by their proposals. *Ibid.*, p. 68.

³⁰ With a minimum specific duty in both cases of 3½ annas per lb.

³¹ With a minimum specific duty in the case of grey goods of 48/8 annas per lb.

goods were stabilised by the Indian Tariff (Textile Protection) Amendment Act, 1934. The duties on British goods were reduced from July, 1936 to 20 per cent as a result of inquiry by the special Tariff Board, whose report was signed on 26th March, 1936 and published in the last week of June, 1936. The United Kingdom imports have for some years been enjoying a huge margin of preference in duty over similar foreign imports on a volume of trade which in 1934-35 was as large as 17 crores of rupees of which 58.5 per cent was derived from the United Kingdom.³²

The Case for Differential Duties.

We shall only make a few broad observations on the fundamental argument that a scheme of differential duties is conceived in the best interests of the country. The ground for treating the goods of the United Kingdom differentially and imposing lower duties on them is in substance this: Costs of production of the United Kingdom industry being higher than the costs of production of the foreign industry, a lower duty would afford adequate protection to the Indian industry against the dear goods of the United Kingdom than against the cheap goods of its foreign rival. To impose higher duties on the United Kingdom goods than are necessary to equate the fair selling price of the Indian goods with their c. i. f. import prices would besides rendering the amount of protection to the Indian industry excessive, add greatly to the burden of the consumer of United Kingdom goods.

The higher costs of production of the United Kingdom goods may be said to be composed broadly of two elements. (1) higher costs due to the superior quality in respect of durability, fineness and finish, design, etc. (2) higher costs than foreign similar quality. Now the United Kingdom goods should be at no disadvantage in the market in so far as their higher prices are strictly accounted for by superior quality. Quality can command its premium, and the consumer would no doubt be ready to compensate the United Kingdom manufacturer of better quality fabrics by offering to buy them at higher prices. The consumer is after all the best judge of the premium he is to pay for higher quality. A claim for a lower rate of duty on United Kingdom goods cannot therefore be based on the ground that higher quality makes

³² This refers only to piece goods imports. Varying margins of preference were granted to other textile goods, and Cotton twist and yarn. The total imports of Cotton manufactures in 1934-45 were 21½ crores.

for higher costs of production. *For the higher quality should make as much for higher prices as for higher costs.*

The only other ground for lower duties on United Kingdom goods is that the costs of production of the United Kingdom industry are higher than foreign costs for the production of goods of like quality, in other and plainer terms, the inability of the United Kingdom manufacturer to supply like goods at competitive prices as against the foreign manufacturer. This then remains the only ground for according preferential treatment to the products of the United Kingdom industry.

The Case Against Differential Duties.

Does the Indian consumer or the Indian revenue, stand to gain from such differential treatment of the products of a particular country? Professor Taussig has rightly observed that a preference on goods from countries which do not produce them so cheaply as other countries might cause a loss of revenue for the country granting preference without a gain to their consumers.³³ Indeed, the Indian Treasury loses a considerable amount of revenue by the great reduction of duty on the United Kingdom goods, while the consumer pays for his goods as much as he would pay if he bought the products of a foreign industry with lower costs, which paid a much higher rate of duty and contributed a much larger amount to the state revenues. Attention may be drawn at this point to the close association in meaning between the phrases 'loss of revenue' and 'burden on the consumer.' Thus the differential duties may either be said to result in a 'loss of revenue' in the sense that the revenue is considerably *less than it should be* in virtue of the burden entailed upon the consumer, because a good part of that burden is borne for the sake of the United Kingdom manufacturer, who because of higher costs of production due, it may be, to his stubborn individualism, improper co-ordination of efforts in production and marketing, and ineffective organisation, cannot market his products at competitive prices without a substantial remission of duties in his favour. That is only to say, however, that the differential duties result in an unnecessary 'burden on the consumer,' in the sense that the burden is *more than it should be* by reason of the addition that it makes to the revenues of the state and therefore ascribable solely to the scheme of differential duties and not to the necessities of revenue.

³³ *Free Trade, The Tariff and Reciprocity*, p. 181.

The two expressions would, therefore, appear to be convertible with one another, being essentially identical in meaning.

In so far the costs of production in Lancashire are unnecessarily high and could be reduced with proper co-ordination of thought, efforts and resources, or rationalisation in the industry, the lower duties on Lancashire goods put a premium upon inefficiency, and serve as a sop to efforts at improving efficiency.

If uniform duties were to be levied on the United Kingdom and all foreign imports, there can hardly be any doubt that the market for the former would undergo a drastic contraction, and the consumer who chose to buy the United Kingdom product might have to make some material sacrifice for fulfilling his choice. The subsidy to the United Kingdom manufacturer would then be direct and the consumer's favour bestowed on the United Kingdom product, the result of a definite and conscious decision. The consumer has however no vested interest in buying the products of a particular country and he could under a uniform non-differential tariff easily avoid undergoing the sacrifice or giving the subsidy by transferring his custom to the cheaper³⁴ alternative product.

³⁴ But not inferior alternative product, because as has been argued above, differential duties are not necessitated by higher costs of production due to higher quality, which ought to be able to command its premium in the market, but higher costs for goods of like quality.

TARIFF AND EMPLOYMENT AND ITS NATURE

BY

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A

The theory of International Trade tells us that we should confine ourselves to that field of production wherein we have a comparative advantage. The population of India is about 360 millions and the average standard of living is on the very verge of subsistence minimum. That means her productive capacity is hopelessly low. In industries she is still an infant; her supposed strength is in agriculture. Somehow, we find that the relative or absolute advantage supposed to have been enjoyed by us is jeopardised by improvements effected elsewhere, and we are threatened by imports of rice, wheat, etc., from outside.¹ What would happen if things are allowed to take their own course? According to Classical Doctrine one of two things should happen: the withdrawal of all marginal land and marginal capital from cultivation or a still further fall in the standard of living which is already too low. All honest and earnest seekers of truth have to solve this problem. To accuse the people of their propensity to multiply faster than the means of production is not solving the problem, but shirking it; to point the finger of scorn always at the social customs and manners as the one stumbling block of progress is to blind ourselves to more serious disabilities—economic and political which we are labouring under. If there is any great solvent in the world of such social dross, it is economic opportunity for the economically necessitous.

It is not necessary to quote statistical data to show that the pressure on land is very great and that the agricultural population is underemployed and overburdened with taxes and debts. The great problem is how to relieve this pressure on land and under-employment. Hence, the starting point in all our economic search should be pressure on land and under-employment of about seventy-five per cent of the population. To start from the so-called

¹ Thanks for the protection given to rice and wheat.

equilibrium position where there is supposed to be full employment and proper distribution of the productive resources is absurd as regards India and countries similarly situated. It is not an equilibrium position, unless one chooses to identify it with one lying at the bottom of a pit upon which debris may fall at any time and crush it; but still it can be maintained that it is enjoying an equilibrium position. Hence if one wants to face realities, one has to start from the position of chronic under-employment, low factor equipment and want of balanced production with all their evil accompaniments of extreme poverty and vulnerability to shocks, nay, tremors, internal and external. It is from this end one has to start and build up and not from any Olympian heights of theoretical isolation away from the ruggedness and realities of life.

B

The level of employment in a country is related to the prevailing wages and price structure within. "The level of rewards," Harrod observes, "proper to a country may, therefore, be defined as that which enables such a quantity of goods to be marketed at world prices with a normal rate of profit that, the productive resources of the country are in reasonably full employment. If inflexible rewards are higher than this there will be unemployment, if lower, inflated profits."² When our productive efficiency is absolutely low when compared with the productive efficiencies of other countries, any improvements in the methods of production in our export commodities in other countries, will depress the price of such commodities and real wages will have to go down to meet the situation. The pressure of improvements affected in other countries in the same lines as of our export commodities will further deteriorate our position. Wages which are already at the level of subsistence will still further be pressed down.

In spite of her plentiful resources in men and materials, India is poor because she is pushed backward and backward by the operation of two factors: the pressure of her growing population, and the gradual deterioration in her relative efficiency of production as compared with other countries she has trade relations with. Taking Madras Presidency the population increased during the last census decade by $4\frac{1}{2}$ millions, i.e., by 10.5 per cent, whereas the net area under cultivation increased only by

about one million acres, *i.e.*, three per cent.³ Unless this surplus population is drawn off to industries, the economic well-being of the people is sure to go down.

The second point requires a closer examination. The question whether a backward country stands to lose or gain when trade relations are established with an industrially advanced country was answered in a way in my previous article on "The Theory of Comparative Advantage" in the Indian Economic Journal, where it was argued that the displacement of industry by agriculture, *i.e.*, of a superior order of productivity by an inferior one is prejudicial to the country even accepting the Classical theory and retaining the labour interpretation. The volume as well as the nature of employment in a country is affected by international conditions and as Harrod observes, it is necessary to explore the relation of the volume of employment to the international situation.⁴ Of all the quantitative measures adopted in Economics, Keynes observes that the volume of aggregate employment is the most reliable one.⁵ When conditions are rapidly changing, it is not only the volume of aggregate employment, but also the way in which it is distributed amongst various occupations is of importance. When any displacement of occupation takes place by the pressure of competition from outside, it can be, *a priori*, argued that prior to such displacement due to such pressure, the people were engaged in occupations certainly more productive than the one they were obliged to choose after they had been pressed out from their original ones. The opponent may argue that that is a more profitable way of securing imports and therefore the total volume of goods and services available for consumption is maintained. In the article referred to above, it was shown that to maintain the same consumption standard the people have to work harder than before because of such displacement.⁶ The continued operation of comparative advantage will lead to a greater and greater underemployment in the country after a particular stage is reached, and to reach that particular stage the stimulus of foreign trade is not quite essential. It is more or less the outcome of the development of communications within the country and it is the geographical distribution of production. As long as this process of distribution of production takes place the average productivity of the country may be

³ Census Report : Madras Presidency.

⁴ Harrod : International Economics, Chapter IV.

⁵ J. M. Keynes : The General Theory of Employment, Interest and Money, Chapter IV : The choice of units.

⁶ Indian Journal of Economics, July, 1936, p. 79 ff.

on the ascent, but when once this has taken place, no further improvement can be expected. Even such geographical distribution of production is not entirely to the advantage of the country because the country becomes more susceptible to price fluctuations in the world. As a matter of fact all those rural areas which have been producing one of the staple commodities that enter into international trade and are depending mainly upon the income of such produce were hit harder during the depression than those whose crop distribution is more varied. After this change has taken place in the distribution of production, any more displacement of industry by agriculture is disadvantageous. On the other hand while this process is taking place, the encouragement of industries by a nationalistic policy would have been more advantageous to the country. The transition from a self-sufficient village economy to a geographical distribution of crops is attended by a lessening demand for labour and if during that transition period our industries and handicrafts also are displaced by foreign competition more people are thrown on land than needed. This was greatly responsible for under-employment in the country. If during that transition period a nationalist policy had been adopted to encourage the industries of the country, instead of foisting Free Trade thus crippling the rising cotton industry in the Mid-Victorian Era, India would have gained an industrial equipment with the least sacrifice. That chance was denied to the country and things were allowed to deteriorate gradually, so much so that our productive efficiency both in agriculture and industry has gone down when compared with other countries. Because of growing pressure on land, agricultural wages were very low and export trade in agricultural products was maintained at the expense of industrial progress. The free play of Comparative advantage, therefore, has brought about a chronic under-employment and low wages in the country. The beneficial effects of comparative advantage can be derived only under the assumption of full employment and free transfer of labour from one occupation to another, thus ensuring full employment at every stage. Unregulated free trade between countries of marked differences in productive efficiency will result in the worsening of the position of the backward country. This worsening might be absolute, not to speak of the relative position.

Following the division of commodities into A, B and C groups of Harrod, the fall of income in the A group (*i.e.*, of commodities like wheat, cotton, etc., which enter into international trade) will bring about a reduction of expenditure in C group commodities (*i.e.*, home consumption goods) and consequently

production of C group commodities will be reduced.⁷ In this way there will be a fall in total production more or less equivalent to the reduction of income from the A group commodities whose prices depend upon world prices.

It is necessary to have the national price structure in harmony with the world price structure so that we might have the maximum volume of goods and services? This holds good only when there is full employment in the country and when efficiency rewards are the same in all occupations. As Harrod observes "agriculture is permanently stimulated to produce more than its correct output, by the comparative bounty to it, provided by the low wage prevalent in it."⁸ Therefore he argues "there is a *prima facie* case for giving some compensating artificial stimulus to manufacturing industry in general especially in countries which are not already encumbered by an intense manufacturing development."

C

Vera Anstey argues "that the increase in industrial output between 1928—34 has not been accompanied by a proportionate increase in employment and since 1929 the actual numbers employed in industrial concerns subject to the Factory Acts has slightly decreased." She further argues that as industry failed to absorb her share of labourers, the surplus was thrown back upon land.⁹ This decrease in the figures of 1931 when production census was taken, was due to labour troubles prevailing in industrial centres, and hence those figures cannot be taken as the basis for argument. Moreover it is not fair to rush to such a conclusion like that without analysing the figures of unemployment and their dispersion amongst various industries. The post-war period is full of ups and downs and it is very difficult to interpret the statistical data and study the trends due to particular factors. Moreover we have not got sufficient data to come to reliable conclusions.

Vera Anstey reiterates the argument of Dr. P. J. Thomas that the very modest progress in the field of industry is at the expense of agriculture and it is alleged that for the benefit of considerably less than 10 per cent of the population, the interests of the agricultural masses have been sacrificed. Nobody denies that a policy of Protection involves some present sacrifice, but that it

⁷ Harrod : International Economics, Chapter IV.

⁸ Harrod, p. 53.

⁹ *Economica*, July, 1936. India in Relation to the New Constitution, p. 239.

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⁷ Harrod : International Economics, Chapter IV.

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⁹ *Economica*, July, 1936. India in Relation to the New Constitution, p. 239.

is with a view to future gains in productive efficiency. What we have to see is how far the sacrifices made evoke benefits on the whole and whether the sacrifices are unduly heavy as to undermine present efficiency. Viewed from this standpoint, it cannot be said that the very modest and discriminating steps that we have taken in our protectionist policy have been responsible for a rise in the cost of living. The entire blame for the disproportionate fall in agricultural commodities and manufactured commodities should not be laid at the doors of discriminating Protection; it is of the nature of depression and as India happens to be mainly an agricultural country she has been hit harder. Moreover those who use the argument of cost of living and consumers' choice do not appreciate the validity and force of the argument of "Efficient Standard" in "The Battle of Standards." Perhaps the consumers' choice is limited to a few varieties of cloth and those too of not the same fineness and finish of the imported commodity. But home-produced cloth of ordinary varieties has decidedly become cheaper and if choice is restricted in the finer fields it does not in any way interfere with the efficiency of the people.

In fact the unregulated and indiscriminate importation of consumption goods as opposed to production goods does not add to the efficiency of the people in any way. On the other hand their meagre income is dissipated in unnecessary luxury consumption which does not improve the consumer either materially or morally.

Even the importation of electrical goods and materials which is so much encouraged by loans advanced to municipalities and other public bodies, I am afraid, is simply adding to our expense, without in any way improving our productive efficiency. If the 19th century had been an era of railway development for the benefit of the Railway Interests in Great Britain, the 20th century seems to be one of electrical development with a similar object in view.¹⁰ The railways at least had other beneficial economic and social effects, though they did not pay their way, whereas, though pious hopes are entertained that electrical development should benefit agricultural interests, it has not yet touched even the fringe of the problem, while it adds to our expense; and the incidence of such additional urban expenditure ultimately falls upon the agriculturist.

¹⁰ Exceptions has to be made in the case of Hydro-Electric works which provide power very cheap and over a wide range.

All the glittering little things that we import from foreign countries are like red-herrings drawn across our path to suck off the raw materials and food stuffs from our country. I wish for a dictator to ban all such imports so that the released purchasing power might all be pooled up for obtaining production goods which will add to our efficiency and national dividend. The consumer has to be educated so as to direct his consumption into channels that promote his efficiency as well as the efficiency of the nation.

The allegation that the policy of protection has involved the sacrifice of agricultural interests is unwarranted. The industries protected provide a ready market for the raw materials produced in the country. If protection is granted to sugar, the agriculturist is the first person to be benefited by it. Sugarcane is a commercial crop yielding relatively high net income when compared with other crops. Moreover a minimum price has been guaranteed for the sugarcane grower in the important centres.

The protection given to iron and steel industry has more than justified itself by way of reduction of costs and it is hoped that the industry would be able to build up export markets in due course. The success that has attended in the recent efforts at expansion is by no means inconsiderable. Her share of the Indian market has risen from 30 per cent in 1927-28 to 72 per cent in 1932-33. The iron and steel industry forms the basis for many other industries; round the Tata iron works have gathered a number of other industries, thus enriching the national economy.

Home markets are more dependable. Japan threatens every time we open our negotiations for trade agreements that she will divert her purchases of raw cotton to Indo-China and other countries in which she is building up economic interests.

At times the simple truth that 'a bird in the hand is worth two in the bush' is forgotten. Even Great Britain whose care and thought had always been foreign markets is now turning more and more towards developing her own markets, for recovery is more evident in home market industries than in export ones.

The agriculturist is benefited in another way by the development of industries within the country. As argued in my previous article, the protected industries disburse large amounts in the form of wages, salaries, rents, etc., which increase the purchasing power of the people. The wage bill of the textile mills amounts to about 20 crores of Rs. and of Tata Iron and Steel Co. to about eight or nine crores. This increase in the purchasing power will create a fresh demand for 'C' group commodities which are consumed in the home market. This secondary

reaction on home production is very important in our country. There is no better subsidiary industry to the cultivator than gardening, vegetable farming and dairying. There is no question of diversion of resources in the production of these commodities. The spare time both of the cultivator and the members of his family is devoted to such production. It allows of intensive cultivation and as such even the small holdings can be made sufficiently remunerative. The stimulus thus given to secondary production of home consumption goods may enable the agriculturist to more than reimburse himself for the loss he might have sustained on those items of his purchase which might have risen in price for the time being. All those who are solicitous of the interests of the consumer forget the fact that production is the basis of consumption and I do not see how the continuous importation of consumable goods can be maintained if the productive powers in the country go on deteriorating, and that is what happens whenever a higher order of production is displaced by a lower one. Production is the basis of consumption is such a simple truth; but the economic pundit with his reverential bow before the altar of equilibrium and full employment does not condescend to see the stern realities of life that look up to him for guidance. Even with the assumption of full employment to start with, a diversion of productive resources from a lower order to a higher one will raise the economic status of the country.

Kahn's article on "The Ideal Output" in the *Economic Journal* is very illuminating on this point. In my article on "International Trade and Wages" a reference has been made to external economies enjoyed by industry.¹¹ The presence of such external economies is an essential criterion in the direction that has to be given to the productive resources of the country. "If the increase in output has a favourable effect on efficiency elsewhere," observes Kahn, "production is attended by external economies."¹² In such a case where external economies are furthered the value of the marginal social net product is greater than the value of the marginal private net product. Kahn further observes that the "external economy takes the form of a vertical distribution of factors from "lower to higher" stages of production in such a way as to improve their efficiency" and therefore, he suggests that "it is in the social interest to divert resources in a vertical direction from the lower to the higher stages of production and that increased efficiency is obtainable by

¹¹ *Indian Journal of Economics*, January, 1936.

¹² Kahn : *Economic Journal*, March, 1935 : "The Ideal Output," p. 4.

an alteration of the technique of production.” He later on makes an important observation that so far attention has been confined to the ideal quantity of an industry’s output but not to the ideal method of production, and that the two questions are quite distinct but equally important. This proper direction can be given only by an interference with ‘*laissez faire*’ whether by means of tariffs or subsidies.

D

Another important question which requires investigation is the supply reaction in production factors brought about by the stimulus to production by tariff or otherwise. No emphasis need be laid on the educative value of the tariff. Ohlin suggests the phrase “the infant country argument” instead of the “infant industry argument” and it is a “very significant suggestion. “List had in mind something of this sort,” observes Ohlin, “when he said that the wealth-creating forces are more important than wealth itself.”¹⁸

Coming to the supply of capital, the supply reactions have to be studied more carefully. This, of course, will stimulate the flow of external capital into the country and that raises complex problems of its own. In the interests of the nationals some conditions have to be laid down on such external capital. But what I am more interested in at present is the supply of capital from within, and how it affects the rate of interest. The gross rate of interest contains besides the true rate remuneration for risk and trouble involved. With the imposition of the tariff, these components are differently affected. The true or net rate of interest might slightly rise because of the greater demand for capital, but the remuneration for risk and trouble may go down because of the confidence that is engendered by the tariff. If the tariff is not hesitating and halting, an atmosphere of optimism may be created so that the charge for risk is minimised. Besides that, the supply of capital may be stimulated or diverted to more fruitful investments. Instead of locking up capital in the dead form of plate and jewellery, or investing it in overcapitalized land, it may seek these fresh channels opened up to the public by the encouragement given to industry. This supply reaction is very important. Unfortunately no statistics are available to make a study of this problem. In general it can be said that a purely agricultural country is, somehow, lacking not only in sufficiency of capital but also in the ability to save, whereas an

¹⁸ Ohlin : Interregional and International Trade, p. 321.

industrial country possesses both. Evidently demand brings forth corresponding supply.


E

Another line of fruitful investigation is the Tariff and the Trade Cycle, whether tariff can be so regulated as to mitigate the evil effects of a trade cycle or whether tariff can be availed of to replenish the capital equipment of the country on proper lines so that when recovery sets in the country is ready for its onward march. "Tariff policy needs to be articulated with the general business cycle policy."¹⁴ Purchasing power, interest rates and prospective demand—the fluctuations of these factors in a trade cycle have to be correlated with the tariff. In the depression period an immense volume of purchasing power remains quite inactive, interest rates are low, and the prices of capital goods sag. All these are advantageous factors from the standpoint of the country trying to increase her capital equipment, but only waiting for the opportunity. If a backward country wants to purchase capital equipment in a boom period she has to pay high prices. The Tata Iron and Steel Company was burdened with overhead charges by way of interest and depreciation on capital, because she enlarged her plant and machinery at a time of high prices and high freight charges, during the post-war boom. Moreover it took abnormally long time before the plant and machinery could be put in working order.¹⁵

But the conditions prevailing in the business cycle can be availed of, if tariff inducement is properly timed. The nature of the depression in an industrially advanced country is something different from its nature in a backward country. In the latter there is no fear of overcapital equipment which is lying idle. The depression is one of purchasing power which is different from unused productive capacity in an industrially advanced country. If protection is properly timed—say after the depression found its level and when it is just waiting for any favourable opportunity to lift itself, the stimulus given that way especially to heavy industries will be highly advantageous to the country adopting such a policy as well as to the country from which she has to obtain her capital equipment. That will stimulate the capital goods producing industries in the latter country. The tariff

¹⁴ International Economic Relations, p. 164.

¹⁵ H. L. Dey : The Indian Tariff Problem, p. 164. Dr. Dey's criticism of the Tariff Board's estimate of depreciation charges seems to rest on his confusion between "Replacement Value" and "Present Value."

coupled with the quota will be very effective in stimulating productivity in both the countries. The capital equipment for a heavy industry like that of iron and steel may take three or four years before the industry can be put in a proper working order. A rising scale of duties on goods to be produced by the protected industry is to be adopted together with the fixation of the quota during the first three or four years when the duties are rising from a low level. Later on the duty is to be fixed at a definite level on the general principles of fixing such duties which can be lowered after the industry has availed herself of the economies of large scale production. If the duties are arranged in this way so that the graph represents an inverted tub () the consumer is not heavily taxed and the producer will be able to get his capital equipment at a less cost. The quota system will give no scope for speculation because of the rising scale of duties in the initial stages. Thus the tariff can be used as an instrument to take time by the forelock and provide an external stimulus so as to give an upward swing to the business cycle.

Tariffs, can, therefore, be used to stimulate employment in the country. Pigou's example of the estoppel or restriction of the importation of non-wage goods into the country is a case well suited to the conditions in our country and the aggregate volume of employment will be substantially enlarged, though the non-wage earners may find their wants less well satisfied than before.¹⁶

Thus we see a judicious use of tariffs is bound to enlarge not only the volume of employment in the country but also improve its nature. In our country there is chronic under employment and the only way to relieve this is the development of industries within the country by some artificial stimulus given to them and to make the economic foundations of the country more broad-based so as to achieve the "Ideal Output" and pass from a "lower stage of production to higher" as suggested by Kahn.

¹⁶ Pigou : The Theory of Unemployment, Chapter XIV. The whole argument of Pigou is not repeated here,

SOME ASPECTS OF RECENT INCOME-TAX LEGISLATION IN INDIA

BY

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The last twenty-five years have witnessed striking changes in the law and administration of income-tax in India. These changes have been brought about for the most part by financial exigencies of the last European War. Under the stress of financial necessity graduation was introduced, the administrative machinery was overhauled and attempts were made, as far as practicable, to minimise possibilities of fraud and evasion. In these attempts at reform reliance has been placed to a very great extent on British experience. British Income-tax laws have furnished the model on the lines of which Indian income-tax system has been largely moulded. India has always been regarded as a debtor country so far as international payments are concerned. But in no sphere is India's indebtedness probably greater than in the realm of ideas—particularly ideas relating to income-tax legislation. The object of this paper is to illustrate this indebtedness and to urge that the influence thus exercised by British laws and British precedents has made the tax more equitable. It suggests finally that India might with advantage incorporate in her tax system the principle of residence as one of the criteria for assessing income-tax.

One notable instance of the wholesale incorporation of a British administrative device into the Indian tax system is afforded by legislation of 1930 passed with a view to check evasion of taxation by the formation of "one-man companies." It is well known that super-tax is not collected at the source. Company dividends can only be subjected to super-tax when profits of companies are finally distributed to shareholders. Unscrupulous income-tax payers often took advantage of this part of the fiscal machinery to minimise their liability to taxation. Fictitious private limited liability companies were formed which were mere arrangements under which an unduly large share of business profits was credited to reserve. Attention was called to this problem in Great Britain as early as 1920 by the Report of the Royal Commission on Income Tax. In 1922 Great

Britain amended her laws mainly on the lines laid down in this Report. The remedy consists in tearing off the mask and treating such fictitious companies as fraudulent arrangements entered into with the object of depriving the Government of their legitimate dues. Action was taken in India along similar lines under Act XXI of 1930. Power was given to Income Tax Officers to assess separately the shareholders of such companies, provided certain conditions were fulfilled. The company in question must be one under the control of not more than five persons. It must be one which has allowed an unduly large portion of its profits to accumulate in reserve, having regard to its reasonable needs of maintenance and development. If these conditions are satisfied an Income Tax Officer is given the power to interfere, provided he is satisfied that the failure to distribute dividends is for the purpose of preventing the imposition of a tax upon undistributed profits.

Resemblance between the taxation laws of Great Britain and India can be traced not only in matters of administrative detail but even on questions of policy. One such question is that relating to the carrying forward of depreciation allowance. In 1907 Great Britain provided that where the allowance for depreciation was greater than the assessment for the year, the unexhausted balance of the allowance might be carried forward in future years. As early as 1918, the Government of India found it practicable to give effect to the principle embodied in British tax system.

The Government of India are also committed to the acceptance of the principle of carrying business loss for the purpose of assessment of income-tax. This principle of carrying forward business losses finds place in the British Income-tax legislation. In that country losses accruing from business are carried forward against the succeeding year or years' profits from the same business up to the sixth year of assessment following that in which the loss occurred. In 1931, the Finance Member gave an assurance that the Government were prepared to accept the principle. The financial situation, however, has not permitted the Government to put this principle into practice. The revenue position must show signs of distinct improvement before the Government would be in a position to sacrifice a substantial sum.

All these are striking instances of the manner in which Indian income-tax law is being slowly and steadily moulded on the analogy of British tax system. There is however one prominent feature of British tax system to which there is as yet no corresponding analogy in India. I refer to the principle of

residence as one of the criteria for levying income-tax. Discussion in India has in recent years centred round the desirability of adopting this principle as the basis for income-tax, but as yet nothing tangible has emerged out of the proposals. The Taxation Enquiry Committee were opposed to the adoption of this principle in India as they thought that the loss of revenue due to the exemption from taxation of the income accruing to residents in India from foreign sources was not substantial. They further thought that administrative difficulties were likely to stand in the way of taxation of foreign incomes.

Sir Walter Layten however thought differently. He felt that apart from the loss of revenue that would result from such exemption, there was a direct inducement to send Indian capital overseas. In 1931 the Finance Member agreed with the view that the exemption of income from foreign investments afforded an incentive towards the export of capital which was extremely detrimental to Indian interest. In times of crisis when due to political or speculative factors an impetus is given to the exodus of capital from India the situation becomes one of considerable difficulty and special measures have to be adopted to safeguard the currency position.

Step by step India has adopted measures with a view to bring under the operation of income-tax such portions of foreign income as are brought into India. Business income accruing abroad was the first to be taxed, provided it was brought to India within three years of the origin of such income. All other incomes from foreign investments, such as those which were not derived from business, were exempt till 1933 even if brought to India. In 1933, however, the exemption so long enjoyed by non-business incomes was withdrawn and all income, profit and gain from whatever source¹ derived were brought under the operation of Indian Income-Tax Law. The time limit of three years was also withdrawn in 1933 with respect to all categories of income. The upshot of these amendments is that the guiding principle in India is still that of *situs* as contrasted with that of residence. The income must either originate in India, or if it originates abroad it must be received in India.

The time has come when a definite breach with the past should be made and residence adopted as one of the main criteria of taxation. In 1931 the Government of India announced that it was intended to introduce legislation for the taxation of income

¹ Agricultural income is the only exception provided such income is subject to taxation in an Indian State.

from foreign investments on the lines prevailing in the United Kingdom. The draft bill divided assesseees into three categories— (a) those resident and domiciled in India, (b) those resident but not domiciled in India, and (c) those resident in India for a period of less than six months. So far as the first class of assesseees was concerned the proposed liability to taxation extended to the entire foreign income. But as regards the second it was proposed to tax the assesseees in respect of such portions of foreign income as were brought to India. Temporary residents were exempted altogether.

The motion to refer this Bill to a Select Committee was however negatived by the Assembly by 47 against 41 votes in February, 1932.

Critics have argued that the imposition of a tax of this kind is likely to hit hard Indian business men investing their capital outside India. But it is necessary to bear in mind that the only alternative to the policy of exempting foreign income from taxation is the imposition of a correspondingly heavy burden on those who invest their money in India. It has also been contended that a tax of this kind might discourage foreign business men from residing in India. This argument though relevant is not decisive, for income-tax is only one among a number of other considerations which are taken into account by foreigners settling in India or coming here for business or other purposes. Besides in a large majority of cases rules relating to the avoidance of double taxation are likely to minimise hardships resulting from the operation of this tax.

The provision of the Draft Bill of 1931 which excited great opposition was the one relating to the distinction between those who were resident in India and those who were resident as well as domiciled in India. But it was overlooked that a similar distinction exists in British taxation laws. There is the same distinction between persons "ordinarily resident" in the United Kingdom and those who are not domiciled in that country. In this connection it may be recalled that this discrimination did not affect the main principle of the Bill. The Government had given an assurance that if in the Select Committee the decision went against them on this particular clause, they would not treat that decision as affecting the main principles of the Bill. This assurance however did not prevent the Assembly from throwing out the measure. At a time like the present when the Government are hard pressed for funds taxation of foreign investments is not only likely to benefit the exchequer but at the same time remove a serious lacuna in the existing taxation laws. A serious and

earnest endeavour should be made once more to place a measure like this on the statute book. A federal form of Government is about to be inaugurated shortly. In that form of Government the Native States will play an important part. In the circumstances it is inconceivable that it should be open to any citizen in British India to escape his due share of taxation by investing his capital in one of the Native States. Political unity can hardly coexist with economic isolation.

SOME GAPS IN THE INDIAN INCOME-TAX SYSTEM

BY

V. K. R. V. RAO.

Within the brief limits of this paper, it is not possible to enter into an exhaustive survey of the Indian Income-Tax System. What I have done therefore is to look out for the gaps, the lacunae that result in an undue restriction of the scope of the tax and a consequent loss of revenue. The primary consideration has been the imperative need for more revenue. Without which no scheme of expansion of the social services can be undertaken. If the new reforms are to acquire a meaning for the masses, public expenditure will have to undergo considerable increase. Even the rates of taxation may have to be raised; that however, should only be in the last resort. Before we do that, the existing tax system will have to be closely examined and gaps that might be the result either of a historical accident or a traditional generosity or the pressure of a vocal minority should be closed. The abolition of all the lacunae in our tax system is the first objective, and the income-tax system claims seniority of attention in respect of both the number and importance of the gaps it contains.

To begin with, a constitutional question of some importance may be disposed of. The scope of the Indian Income-Tax is not exclusively governed by legislation and court decisions. Section 60 of the Income-Tax Act gives the Governor-General some unusual powers:

“The Governor-General in Council may, by notification in the Gazette of India, make an exemption, reduction in rate or other modification, in respect of income-tax in favour of any class of income or in regard to the whole or any part of the income of any class of persons.”

And no less than thirty-nine kinds of exemptions are authorised under this section. Such delegation of power to an irremovable executive that is not responsible to the legislature finds no parallel in the income-tax legislation of any other country; and it is necessary that in any future codification of the

Indian law on the subject, this clause should be annulled and the exemptions mentioned in the Income-Tax Manual placed before the legislature and if approved, brought under a consolidated section in the Act itself.

At first sight, the scope of the Act appears to be wide enough to satisfy the most eager of tax-gatherers; for all incomes arising, accruing or received in British India or deemed to have arisen, accrued or received in British India are subject to the Indian tax. But in fact, all such incomes are not so subject. Thus, *e.g.*, the salaries, leave allowances and pensions of Government servants payable abroad and interest on the sterling securities of the Government of India do not pay the Indian Income-tax though they obviously find their origin in this country. In addition, incomes of residents arising abroad and not received in this country are outside the perview of the Indian tax. Neither the principle of 'residence' nor that of 'origin' therefore finds complete expression in governing the scope of our income-tax. The loss involved on this account is considerable and is probably in the neighbourhood of Rs. 2 crores a year. In view of the urgent requirements of the Indian financial system, it seems imperative that the law should be so amended as to bring in both these types of income within the income-tax net.

It may be objected that taxing the income from sterling securities will result in either raising the rate of interest against India in the London Money Market or discouraging the flow of British capital into India. There is no reason why this should be the case, for under the provisions of Section 27 of the British Income-Tax Act, such incomes will get relief on double taxation to the extent of half the British rate; and as the Indian rate is less than the British rate for all incomes below Rs. 3 lakhs a year, most of the holders of Indian sterling securities will not suffer by having their incomes subjected to the Indian Income-tax. The real sufferer will be the British Exchequer which will have to bear the brunt of the double income-tax relief on this income. Thus for the sake of less than £1 million, a negligible amount as compared to the yield of the British Income-tax, the Indian Treasury suffers a loss of not less than 1/17th of the present yield of the Indian Income-tax. Moreover the plenitude of funds in the London Money Market, the difficulty of finding suitable investments and the higher rate of profit available in India are all factors encouraging the flow of British capital into India and will easily counter-act any tendency towards discouragement resulting from the levy of our income-tax on the interest of sterling securities.

Taxing the income of residents arising abroad can also find ample justification. Apart from the fact that a good deal of revenue is being lost, a tendency towards an export of capital is growing in this country; and with rising rates of taxation in India, this tendency is bound to increase. Capital requirements in India are also growing apace and even apart from political considerations, it is desirable that Indian industrial and commercial requirements should as far as possible be financed by Indian capital. Bringing within the scope of our income-tax profits arising and retained abroad will be a factor operating in that direction. Moreover in doing so we will only be following the example of the British Income-tax System on which we have already drawn so much in the formulation of our own system.

Another big and deliberate lacuna in the Indian system is the exemption of agricultural incomes. As long ago as 1924, the Indian Taxation Enquiry Committee found that "there is no historical or theoretical justification for the continued exemption from the income-tax of incomes derived from agriculture." So far, however, no attempt has been made to remove this anomaly from the Indian Income-tax system. While it may be true that temporarily settled areas pay a land revenue which may be regarded as a tax on agricultural incomes no similar ground can be advanced for exempting agricultural incomes derived from permanently settled estates. The owner of the permanently-settled lands is not the original landlord. "The fact is that, tempted by the income to be derived from the cultivation of the waste lands which according to some reports was more than one-third of the whole area, and by the offer of an interest in the soil itself, the zemindar entered into a gamble. The Company offered to convert him from an office holder to an owner in fee simple in return for a fixed price."¹ The land revenue he pays is really in the nature of a "mortgage or title rent" and making him pay income-tax would not mean that he is paying two taxes on the same income. In fact, even if the land revenue he pays is in the nature of an agricultural income-tax, there has been a substantial addition to his income which escapes scot-free and constitutes an almost purely unearned increment. The case for taxation is also strong in the case of the higher grades of income from temporarily settled lands. In addition to these direct exemptions, the law allows the owner

¹ Per Mullick J. in *Dharbanga Vs. Commissioner of Income-tax*, case 75. *Income Tax Cases*.

of incomes derived jointly from agricultural and non-agricultural sources to exclude his agricultural income from his 'total income,' i.e., they are not even to be taken into account in calculating the rate of tax due on his taxable income. The maintenance of this exemption is not only unjust in theory and contrary to the practice in other countries, but also has the result of inflicting a great loss on the nation's exchequer. Sir Walter Layton estimated that the abolition of this exemption would result in an addition of Rs. 5 crores to the revenue, while in my book on 'Taxation of Income in India' published in 1931, I estimated the yield from the taxation of agricultural incomes from the estates of permanently settled zamindars alone at Rs. 2.5 crores. There is no doubt that the inclusion of agricultural incomes within the scope of the Indian Income-tax is a reform that is long over-due; and is desirable not only on grounds of fiscal justice but even more on that of the paramount need for increased revenues without which the new reforms would make no difference to the economic conditions of the masses of the people.

There are a number of minor exemptions of an undesirable kind. Thus there is no reason why the income of the High Commissioner, the Trade Commissioners abroad, and other officials in the consular and diplomatic service should find exemption from the Indian tax, as they do not pay the income taxes of the countries where they are serving. Then again, some of the exemptions given to military officials such as the portion of the income which is compulsorily deducted for payment to a mess, wine or band fund and the value of rations and money allowances paid in lieu thereof are clearly without justification and ought to find no place in the Indian Income-tax system. The exemption of capital sums received in commutation of pensions is highly anomalous when pensions themselves are subject to tax; and it is desirable that this should be rectified in any reform of the income-tax system. The allowance given at present on account of insurance premia is to the extent of one-sixth of the assessee's income and the rate of relief is that appropriate to the assessee's total income. Most of the countries giving the allowance restrict the total amount that could be claimed as rebate on this account, while in Great Britain the rate of relief given is only at one half the standard rate. In so far as this allowance is meant to encourage the saving habit, it is not necessary in the case of the higher incomes where saving is more a matter of habit than of deliberate abstention from consumption; while the tax relief thus given is far greater in

their case as the rate of relief is correspondingly higher. It is therefore suggested that instead of allowing the taxpayer to deduct from his available income the actual insurance premium paid by him to the extent of one-sixth of his income, the authorities should deduct from his tax assessment the appropriate tax on the amount paid as premia, subject to a maximum of Rs. 80. This would mean that for taxpayers with incomes below Rs. 10,000 the position remains unchanged, the relief allowed accounting for one-sixth of their income; it is only in the case of the higher incomes that the relief is less than a sixth of income and that is as it should be.

One more important feature of our system needs thorough examination from this point of view; and that is the relief allowed at present to all incomes subject to income-tax in both Great Britain and India. The relevant section in the Act is reproduced below:

“If any person who has paid Indian Income-tax for any year on any part of this income proves to the satisfaction of the Income-tax Officer that he has paid the United Kingdom income-tax for that year in respect of the same part of his income and that the rate at which he was entitled to and has obtained relief under the provisions of Section 27 of the Finance Act, 1920, is less than the Indian rate of tax charged in respect of that part of his income, he shall be entitled to a refund of a sum calculated on that part of his income at a rate equal to the difference between the Indian rate of tax and the rate at which he was entitled to, and obtained relief under that section.”

Provided that the rate at which the refund is to be given shall not exceed one-half of the Indian rate of tax.

In Sub-Section (1).

- (a) the expression “Indian income-tax” means income-tax and supertax charged in accordance with the provisions of this Act.
- (b) the expression “Indian rate of tax” means the amount of the Indian income-tax divided by the income on which it was charged.
- (c) the expression “United Kingdom income-tax” means income-tax and supertax chargeable in accordance with the provisions of the Income-tax Acts.

Section 27 of the English Finance Act lays down that to the extent of one half the British rate, relief from the Indian

Income-tax should be met by the British Treasury. This means that the extent of relief payable by the Indian Treasury depends on the relative height of the two scales of duties. It is only on incomes exceeding Rs. 3 lakhs that the Indian rate is more than half the corresponding British rate,² and the number of persons with incomes exceeding Rs. 3 lakhs and paying income-tax in both the countries are comparatively few in India; and the refund granted on their account does not amount to a very appreciable figure. Nevertheless the annual average of the amount given by way of refund under Section 49 works out at Rs. 123 lakhs during the four years ending 1934-35. The bulk of this refund went to companies, the actual amount being Rs. 118 lakhs. The main reason for this apparently higher rate of Indian tax on corporate income is the supertax on companies which is a peculiar feature of the Indian Income-tax System and finds no parallel in its English counter-part. It is true that the English financial system includes a corporation tax; but this is not regarded as a part of the income-tax and is not therefore taken into account when calculating relief under section 27; whereas the Indian supertax on companies is included and hence it is that a substantial amount has to be paid as refund by the Indian Treasury.

I have expressed elsewhere my strong feeling that all reliefs given on account of double taxation should be exclusively restricted to nationals of the country. I am prepared to modify this by the principle of reciprocity, where reciprocity embodies mutual gains of a comparable magnitude. When considering the question of refund under section 49 it must not be forgotten that the amount of income from English sources accruing to Indians is very much less than that from Indian sources accruing to Englishmen. The amount involved is also quite substantial, amounting to more than 5 per cent of this tax-yield. Under the circumstances it appears desirable to withdraw from the agreement entered into with Great Britain on double income-tax and confine refunds only to resident Indians who have to pay income-tax in more countries than their native land.

It may be objected that such a course would discourage the flow of British Capital into India; as virtually the same argument is also advanced against the taxation of the interest on sterling securities, it may be worth while to examine this contention in detail.

² With the higher scale of duties now in force, the limit has been reduced below Rs. 3 lakhs.

Firstly, it should be pointed out that any adverse effects as might result from this course will only apply to *future* entry of British capital. The amount already invested in sterling securities as well as in Indian companies will not be affected. Even assuming that the market price of these shares and securities may fall, it will not mean a withdrawal of capital.

Secondly, the relief given by England under section 27 of the English Finance Act is not conditional upon similar grant of relief by any one of the Dominions or India. And as the Indian rate of tax is less than half the English rate for most incomes, the English investor in Indian securities or concerns will not suffer any loss due to his paying the Indian income-tax. As for companies, the super-tax on Indian companies is really in the nature of a corporation tax and if the English investors draw the attention of their Parliament to the double taxation they suffer under the English and the Indian corporation taxes, they will no doubt be able to secure relief from their Government. In any case, the double income-tax they will pay will only be to the extent of half the English rate, which is not a great addition.

Thirdly, the rate of profits which British capital is able to get in India is generally higher than what it can secure at home; and the amenities it receives in this country are greater than what it gets in other Dominions or in countries outside the British Empire. Moreover, Britain's economic organization is accustomed to a large export of capital every year and the security offered by India is much greater than what British Capital can get elsewhere. Under the circumstances, even the slight double taxation contingent upon the abolition of double income-tax relief by the Indian Government will not operate as a bar to further flow of British Capital into India.

Fourthly, even if the flow of British capital into India slackens, there are other financial centres which can supply capital, particularly the United States of America. In India itself gold is fast ceasing to be an illiquid reserve and Indian capital is becoming more alive to opportunities of investment in industry and trade. Fear of slackening in the pace of our economic development due to the reduced flow of British capital need not therefore be given undue weight in considering the question of either taxing interest on sterling securities or abolishing the double income-tax relief now given under Sections 49.

To sum up, the Indian income-tax as at present constituted contains a number of lacunae which find no justification and the net result of which is considerably to reduce the yield of the

Indian income-tax. Closing up these gaps would probably increase our resources by between Rs. 5 to Rs. 8 crores, an amount not to be sneezed at in the light of both our requirements of public expenditure and our revenue from tax resources.

TAXATION OF AGRICULTURAL INCOMES

With Special Reference to Madras

BY

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Taxation of higher agricultural incomes on a progressive scale has been one of the most favourite reforms suggested by politicians and economists and administrators of this country. At any rate, so far as Madras Presidency is concerned, there has been little difference of opinion on the desirability and equity of such a tax, judged by the evidence given by most of the representatives of the above classes before the Indian Taxation Enquiry Committee, though there has been little agreement on the methods and rates of assessment. The voice of protest of the zamindars and bigger landlords has not been so much heard in this Province as in Bengal, in spite of the fact that one-quarter of the Madras Presidency is under Permanent Settlement and in the Zamindari as well as Ryotwari areas, there are a large number of landholders who would be affected by such a tax. In the discussion in the Madras Legislative Council, in which larger landholders were well represented, when the Madras Government introduced a Land Revenue Bill in 1924 designed to carry out the wishes of the Joint Select Committee of Lords and Commons to embody in law the main principles of land revenue, there were a few who supported the idea of imposing a graduated tax on agricultural incomes of over Rs. 2,000—provided land revenue was permanently fixed at a low flat rate.¹ It was raised as a side issue in an argument to defeat the Bill; what its fate would be, if it was the main issue before the House and its implications were fully understood, it would be idle to guess.

Need for More Revenue.

A graduated tax on agricultural incomes is advocated for more than one reason. The inadequacy and inelasticity of the existing land revenue system which had been increasingly felt

¹ Proceedings of the Madras Legislative Council, 28th March 1924, pp. 40-41 and 59.

by the Provincial Governments with their expanding items of expenditure after the Montford Reforms called for some additional source of income; in the alternative, there was a clamour for a share of the income-tax collected by the Central Government on non-agricultural incomes in the Provinces. The Provincial Governments themselves have not so definitely demanded a levy on higher agricultural incomes as the politicians and economists have done. Some of them have been somewhat tender to the old landed aristocracy, perhaps as a bulwark against the political and agrarian agitation of recent times. The Taxation Enquiry Committee after defending at length the legality and equity of such a tax recommended it for adoption in a rather halting manner and gave it the very last place in the 'order of precedence' of substitutes for taxes removed or reduced, on the score perhaps of 'political objections' or administrative difficulties' discussed in an earlier part of the report.² The Government of India in their Despatch on Constitutional Reforms seemed to have been equally impressed with "the difficulties which this subject presents" and would not count on the increase of revenue from this source. It was the Indian Statutory (Simon) Commission that gave a bold and clear lead, and said that the exemption of agricultural incomes could not be supported on historical grounds or by fiscal theory. They brushed aside the objection of 'administrative difficulties' as not being peculiar to India; as indeed less applicable to this country with its elaborate revenue staff. The controversy on the need or the feasibility of such a tax has been laid at rest by the framers of the New Constitution who have given exclusive power to the Provinces to impose taxes on agricultural incomes.

Fiscal and Agricultural Policies.

Apart from the needs of Provincial Governments, the reform has been pressed by publicists and students of public finance with a view to redress the great inequalities and injustices and the uneven incidence of the existing systems of land revenue in various parts of the country. Its greater pressure on the poorer ryots because of the uniform rate imposed on all sides of holdings, on the plea that it is a rent or a tax in *rem*, is in direct contravention of the tendency of the modern income-tax to counteract the inequalities in the distribution of income. But it is not merely fiscal policy that warrants the change. The agricultural policy of even conservative countries like England, where the landlords

² Indian Taxation Enquiry Committee Report, pp. 302, 214—7.

in the past did their best to improve and equip the land instead of leaving the same to farmers, has been deliberately framed in the last fifty years with a view to encourage the creation of small holdings and the break-up of the big estates by means of high taxation and restrictions, which in combination with increased costs of management and charges for improvement have had the desired effect, to the extent that over a quarter of the farmers have been enabled to become owner-occupiers, and a large number of landlords have alienated their estates.³ This policy has found greater support in some of the Western European countries, notably in Denmark and Germany. The new countries overseas like Australia and New Zealand have not been behind hand; and differential rates have been imposed with a view to discourage large estates, tenant farming and absentee landlordism, more than even to replenish the Treasury or redress fiscal inequalities.⁴

There is in India no lack of small, even tiny, holdings. And whatever be the size of holdings owned, the cultivating unit is quite small. Only the cultivator is a man with limited rights and more limited means. And there are in some parts of the country intermediaries who, without performing any useful function intercept the income from land and flourish at the expense of the cultivators on the one side and the State and the bigger landlords on the other side. Can any system of taxation of unearned incomes tax such functionless right-holders out of existence? There are not yet many in India who are prepared to go to such revolutionary lengths, but there is a growing volume of opinion in favour of putting an end to or reducing the glaring hardships and inequalities of land revenue systems and introducing an element of progression in land taxation. The two schemes indeed are, in the view of several reformers, inseparable. Relief should be urgently given to the smaller holders, and to make up the loss in revenue the bigger holders and landlords should have to pay higher rates, a concession being shown to those who have the initiative and enterprise to take up farming of their own accord.

Land Revenue—Rent or Tax ?

There are still theoretical diehards who would argue that land revenue being a rent should not be subjected to any progression or be granted any exemption. There are others who would say it is a tax and already presses so heavily on even the bigger landholders, in temporary settled areas at any rate, that

³ J. P. Maxton, *Agricultural Policy*, p. 16.

⁴ G. Findlay Shirras, *Public Finance*, p. 431.

no further levy should be thought of even on higher incomes, while a case for complete exemption exists for lower incomes on the analogy of non-agricultural incomes. These would not concede the virtues of an old tax, nor mind the loss of revenue to the State. But the levy of a low flat rate on land, apart from local rates on the one side and a graded income-tax by the central authority on the other, is common enough in other parts of the world. Such a levy may be construed as "the assertion of the ancient seignorial claim of the State invariably recognised as a liability and as an obligation attaching to rights in land throughout the country" or be claimed "as an expression of the view that land should be an item of nationalised property in India."⁵ The fact of the matter is that, whatever the origin or basic idea might be, land revenue is "a rent which is gradually approximating to a sort of tax" on account of the gradual application of the principles of a tax system." The first great blow at the idea of rent was struck by the Joint Select Committee of 1919, who wanted it to be brought under the control of the Legislature, apparently on the principle of "no taxation without representation." Before the final death-blow was given by the Taxation Enquiry Committee to the old conception of land revenue as rent, the Madras Board of Revenue, quite a conservative body, had adopted 'for the sake of simplicity' Chapman's definition of a tax as "a compulsory contribution made to Government under stated conditions, when the contribution is not a *quid pro quo* for a specific service rendered" and included not merely ryotwari demand, but also the *peshkush* in permanently settled areas and *Shrotriem Jodi* under tax revenues.⁷

A Basic Rate—Reduce Land Revenue.

Granted the legality of the imposition of a graduated tax on agricultural incomes in the permanently settled as well as temporarily settled areas, and the readiness of the Governments and Legislatures to impose the same according to their needs, there are some fundamental and practical difficulties. An income-tax cannot be imposed ignoring the incidence of the present land revenue which cannot be abolished for obvious reasons. But the existing rates do press heavily; they should be now much more than 25 per cent of the annual value, the maximum recommended by the Taxation Committee. They should certainly be reduced

⁵ I. T. E. C., Vol. VII, Evidence of Mr. N. Gopalaswami Ayyangar, p. 351.

⁶ *Ibid.*, Evidence of Dr. J. Matthai, p. 15.

⁷ *Ibid.*, Memorandum of the Board of Revenue, p. 602.

and the basic rates on all classes of land, whatever the size of holdings, should be levied at a low flat rate. The present rates may be reduced by 25 to 50 per cent according to the nature of tracts and the judgment of an impartial body who would enquire into the relative incidence and adjust the burdens as far as possible equally among all the districts, which are bearing unequal burdens on account of the different dates of resettlements with different ruling prices in the previous thirty years taken for commutation. This looks arbitrary and is no doubt a tall order. But this was more or less the demand made at the Madras Legislative Council.⁸ All such settlement, of fixing a basic rate, has to take into account the past and cannot be done on a clean slate. But once this is done and the burden is fairly and evenly distributed over all the districts, there would be no need for elaborate resettlement parties.

Low Flat Rate on Capital Value of Land.

The alternative proposal of scrapping the existing system altogether with its rates of assessment fixed on the supposed net yield and substituting in its place the levy of a small rate based on the capital value of land is not without attractions or precedents. But it has its own serious defects, particularly if it is to be the capital value of unimproved land, which makes due allowance for the improvements effected by the owner of land, or imposes a definite charge for the improvements effected by the State, usually a water rate for irrigation.⁹ This is alright for new countries or new lands reclaimed and improved. But in the case of old wet lands cultivated for generations, it is very difficult to disentangle improvements made by owners or by old rulers and find out unimproved natural value of land. Even the valuation of lands not much improved would be affected by vagaries that cannot be checked. Sales of lands are not common except in times of distress or boom when values go down or up abnormally. Even in normal times in the purchase of lands speculation, sentiment and fancy play as much part as the productivity of land. The case of Japan where land is taxed on capital value is not very helpful. A rough and rapid survey, extremely liberal to the agriculturist, is said to have been made

⁸ Proceedings of the Madras Legislative Council, 28th March 1921, pp. 40-41; also Mr. T. A. Ramalingam Chettiar's Evidence before I. T. E. C., Vol. VII, p. 328.

⁹ V. K. Ramanuchariar, *Land Revenue Settlement*, pp. 104-7, I. T. E. C., Vol. VII, Evidence of Mr. N. Gopalaswami Ayyangar, p. 351 and pp. 362-65.

K. V. Rangaswami Ayyangar, *Some Trends of Modern Public Finance*, p. 239.

about 50 years ago, and though the capital value has enormously increased, there has been no revaluation except for residential land. In the proposals made in Madras, revaluation once in 15 years was contemplated. But in Japan, the percentage payable on assessed value could be raised in an emergency. And in addition there is the income-tax on agricultural incomes.¹⁰ Madras, however, has escaped the serious complications that have resulted from the rise in Bengal of a series of intermediate tenure-holders with rights whose capital value cannot be ascertained at all or with ease.

Exemption Level for Taxing Incomes.

If there is agreement on the basic rate to be paid by all and an income-tax is to be imposed on higher agricultural incomes, the exemption level has to be fixed. There is no longer the question of amalgamating it with the income-tax system of the Central Government. If the existing land revenue rates are reduced on the lines suggested above, and if it is also conceded that land is on a different footing from other sources of income there would be little case for suggesting a very high level, such as Rs. 30,000, on the ground that payers of land revenue with incomes below that level would be paying a higher rate than that of income-tax paid on non-agricultural incomes.¹¹ For the purpose of levying taxes on incomes, the average incidence of the land revenue on the whole Province is not so important as its incidence on particular classes of lands in particular districts. How widely it may vary is indicated by the tables published by the Taxation Committee of 'the multiple of rental to assessment.'¹² And he who knows anything of the worth of gardenlands of Madras, with or without wells, and the low rates of assessment on them will find in them scope for either an enhancement of the land revenue or the imposition of an income-tax. There is no reason why the low dry-rate should be continued for ever, and the improvements effected, even though by the owner, should be perpetually exempted from taxation as it is done in Madras and Bombay but not in Northern India. The greater difficulty of digging wells in parts of Peninsular India might be recompensed by a longer period of exemption.¹³ Again, it should not be forgotten that people with an agricultural income of Rs. 1,000

¹⁰ G. Findlay Shirras, *Public Finance*, p. 426.

¹¹ V. K. R. V. Rao, *Taxation of Income in India*, p. 94.

¹² I. T. E. C., Vol. II, Appendices, pp. 91—93.

¹³ Royal Commission on Agriculture in India, Vol. Madras Evidence.

and over have a greater real income, with the comforts and services that they can command in the countryside, compared with the city folk who have to pay for everything. With a lower rate of land revenue, it should indeed be possible to bring down the exemption level to Rs. 2,000 as suggested in the Legislative Council.

The Case of Permanently Settled Estates.

The richest harvest is expected to be reaped in the permanently settled estates. Indeed it is the flagrant injustice, resulting from the blunders of the early British rulers in fixing the *Peshkush* for ever, that is the main provocation for the suggestion of this income-tax levy. It is the patently unearned increments of permanently settled estate owners that are recommended to be taxed. The unearned incomes of many a landlord in the temporarily settled zamindari areas as in the United Provinces and of the big landholders in parts of ryotwari areas are not so much in the eye of the reformer. Granting that all such income received should be taxed, even as they were when income-tax was first imposed in India—though the permanent estate holders claimed that their estates were sacrosanct¹⁴—the important question is to decide how much of the rentals they receive, according to the accounts maintained by the Government, should be now deemed taxable. Though, on the whole, the *peshkush* payable to the Government is but 20 per cent of the estimated revenue realized by the Zamindars in the Madras Presidency, 6 out of the 12 big estates, for which particulars are published by the Board of Revenue, pay proportions ranging from 13 to 45 per cent of the estimated gross income.¹⁵ It is but fair to investigate what further deductions should be made on the following grounds instead of declaring straightaway that the difference between the estimated rentals and *peshkush* paid is taxable: how much of the rentals fail to be collected and have to be remitted, the expenses of collection, the expenses of the maintenance of works of irrigation or drainage and the return on investments made on such works in the past. It is perhaps not so well known that there was a time when these works were kept in better order by Zamindars than by the Government.¹⁶ Even now there are Zamindars who attend to such works. If their

¹⁴ Sachin Sen, *Land Economics of Bengal*, pp. 126—40.

¹⁵ Report on the Settlement of Land Revenue, 1931-35, p. 26.

¹⁶ Report of the Madras Public Works Committee, 1850.

number be small, it is all the greater reason why due consideration should be given for such work done. The very fact that in the recent temporary settled estates, as in the Sunderbans in Bengal, a deduction of at least 30 per cent is allowed for such purposes and in the older temporary estates in the north only 50 per cent of the net assets is the maximum leviable assessment by the Government is enough to establish the nature of the claim of permanently settled estate holders.¹⁷ There is again such a difference in the margins enjoyed by the different people that it is difficult to generalise and assert how much will be taxable according to any reasonable business standards. It may not exceed 40 per cent in the case of the best estates, if a guess can be ventured; it should be very much less in the case of the smaller ones. In fact, several *mittahs* had to be relinquished in the earlier half of the 19th century, and some of those who have survived might claim compensation for losses suffered in the past!¹⁸ The lot of those who have recently purchased estates capitalising the value of the large margins, so long exempted from taxation, should in fairness receive some special consideration as they have had no warning. If in Madras we had intermediate tenure-holders as in Bengal, the problem should indeed be much more baffling. Another set of people who are generally ignored in discussions are the big ryots in Zamindari areas, some of them with bigger incomes than their own Zamindars and deserve as much as their confrère in ryotwari areas to be taxed on their larger incomes (*minus* perhaps establishment charges). It might have been sheer folly to have taxed petty cultivators on their incomes, when first income-tax was imposed.¹⁹ But to imagine that all ryots in Zamindari areas are small folk is to ignore the realities, at any rate so far as Madras is concerned. They have certainly a case for lighter taxation if they pay a larger rate of rent or kist or water-rate to the Zamindar in comparison with the neighbouring ryotwari landholders.²⁰ But rents are now regulated by the Estates Land Act and cannot be enhanced at will. Where the Zamindar had already screwed up the rates, the Government would profit by the larger margins available with him on that account.

17 Sachin Sen, *Land Economics of Bengal*, pp. 96—103.

18 S. Srinivasa Raghavaiyangar, *Progress of the Madras Presidency*, pp. 25, 26.

19 J. P. Niyogi, *The Indian Income-tax*, pp. 270-71.

20 I. T. E. C., Vol. VII, Evidence of Mr. P. T. Srinivasachariar, p. 117.

Tax on Inam Lands.

The annual value of the alienated land revenue, which in Madras amounted to Rs. 87·3 lakhs in 1934-35, may not be—from what little is known of the beneficiaries of the grants made—a fruitful source of income. Taking the ‘whole *Inam* villages’ alone, of which there are, at present, according to a high authority in Madras,²¹ 5,000, the annual value of the grants is only Rs. 29 lakhs which gives for each village less than Rs. 600 on an average.²² Most of these villages had been split up into small holdings and there were said to be holdings of even 75 cents. The Government would nor or could not give information of the details of such holdings. The Inam legislation recently enacted in favour of tenants occupying the land, it is feared, would deprive the petty inamdars of their ownership of their land without adequate compensation.²³ The position is not better in *minor inams* where the annual value of grants is Rs. 45 lakhs, lands having changed hands at higher prices on account of lower land revenue. The rest of the alienated land revenue represents the assignments or remissions of land revenue in favour of religious institutions principally.²⁴

Administrative Difficulties.

The administrative difficulties of ascertainment of agricultural income have been the main objection of some of the critics. The Simon Commission suggested the employment of the staff of Imperial Income-tax Department on this work also, as they only recommended the removal of the exemption of agricultural incomes from the existing income-tax and therefore the amalgamation of both agricultural and non-agricultural incomes for purposes of taxation.²⁵ Even then they thought the help of the elaborate revenue and settlement staff would be needed. Just as in other Provinces, there were experienced officials in Madras who thought it would be easy enough work for the local revenue staff to assess the income of the larger land-holders. In fact they were doing it fairly well even so far as non-agricultural income was concerned, when they were entrusted with the task in the pre-Reform days.²⁶ The strongest objection

²¹ Mr. T. R. Venkatarama Sastri.

²² Settlement of Land Revenue, 1934-35, p. 37.

²³ Mr. T. R. V. Sastri in *The Hindu*, 26th October, 1936.

²⁴ Settlement of Land Revenue, 1934-35, p. 37.

²⁵ Indian Statutory Commission Report, Vol. II, p. 240.

²⁶ I. T. E. C., Vol. VII, Evidence, p. 361.

to such assessment, and in fact to the whole idea of an agricultural income-tax on that account, came from a well-known Civilian, who had been a Settlement Officer. We may not agree with his opinion, but the sidelight that was thrown on the character of settlement work itself is of value in this discussion.

“ It would be extremely difficult for a taxing officer to estimate a ryot's income and allow for the necessary cultivation expenses. Ryots often own land in several villages and the Government accounts are village-war only. It would be necessary to examine the accounts of several villages and question the *Karnams* to collect the total holding of a ryot. It would be essential to decide in each individual case the legitimate cultivation expenses to be allowed. To estimate a general scale for cultivation expenses has been found extremely difficult in settlement, and the attempt is no longer made. There would be no evidence for the actual out-turn for any particular year or for the price realised beyond the ryot's own admissions. . . . He rarely keeps accounts. Any attempt to decide on the total income must therefore degenerate into the application of some such general principles and rules as we adopt in settlement. It would be applied to individuals instead to a district; it would recur every year instead of once in 30 years. It would probably mean individual appeals, and the expenses and trouble would doubtless be out of proportion to the revenue secured.”²⁷

Such objections have been really met by the Taxation Committee and the Simon Commission. The number of people with an income of about Rs. 2,000 and over would certainly be well known in the district, particularly to the revenue staff. The very fact of the imposition of an income-tax would induce well-to-do agriculturists to keep accounts, as in fact they do, when special crops like plantains and sugarcane are raised. The Agricultural Department is interesting itself more and more in farm cost accounts and they maintain records not only for the Departmental farms, but also study the costs of cultivation of local ryots. An improvement in method is all that is needed in which assistance can be sought of the Economics Departments of Universities. Indeed it is a challenge to the students of Rural Economics of

the country. The Cooperative Department and societies, particularly the Land Mortgage Banks, of which there would be about 100 very soon in the Province could supply figures for the purposes of checking the returns, where soils and other conditions of cultivation do not vary much. There are again the figures of rentals or leases which are very common in all areas where rice is grown, and special valuable crops are raised and may serve as a check—though our Bombay friends would say that rental value by itself is an insufficient basis for calculating the incomes of cultivating owners.²⁸ After all, the estimate of an agriculturist's income is by no means half as difficult as the ascertainment of business profits.

Yield and Effects of Income-Tax.

It is not easy to estimate the probable yield of the tax on agricultural incomes, when we are not sure of the nature of the tax, the method and rate of assessment, the class of persons that would be effected or exempted, the deductions that would be permitted or withheld, and the repercussions it might have on the size and composition of holdings. Already the joint pattas in Madras are said to be on the decrease due to the disintegration of the joint family, and higher rate of tax on larger incomes might accentuate partition. But it is all to the good, as in Madras no one is enamoured of joint pattas which give rise to a lot of misunderstanding, if not disputes. On the other hand, "the small holder is said to be gradually making way for the large landholder who seldom cultivates the land himself." There was in the quinquennium ending 1930 a marked rise in the number of single patta holders paying over Rs. 250 as land revenue; the number rose from 10,308 to 11,039, while the joint pattadars have gone down from 3,179 to 2,648.²⁹ Whether the tax is likely to be shifted to any extent on to the shoulders of the tenancy in parts of the country where there is no tenancy law is another serious question to be tackled. Whatever may be the yield or the effects, the experiment is well worth making if only to appease the growing feeling in the country against the antiquated method of land revenue which lets off the bigger people lightly. As has been well said, "The primary difficulties of public finance in every country are at bottom psychological."³⁰

²⁸ D. R. Gadgil, *Bombay Land Revenue System*, pp. 10—20.

²⁹ Mr. W. R. S. Sathyanadhan's *Report on Agricultural Indebtedness*, p. 6.

³⁰ I. T. E. C., Vol. IV, *Evidence of Dr. J. Matthai and Mr. T. K. Duraiswami Ayyar*, p. 3.

PROBLEM OF INCOME-TAX ON AGRICULTURAL INCOME

BY

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The question of bringing agricultural income under the general income-tax has historical, theoretical and practical importance. In much that has been said and written on this matter, a student of public finance is able to discern a want of balanced views but perhaps the most serious defect from which most of the controversies on this problem suffer, consists in the absence of sound economic organs on either side.

From practical point of view, the difference made by the exemption of agricultural income from the income-tax is perhaps not so great as a lay man is apt to think. For in the long run the incidence of all taxes (excepting those on pure surpluses) gets diffused over the various economic interests and thus the injustices of a badly balanced tax system get automatically remedied. But it would be too rash, however, to suppose that in the long period, this diffusion is necessarily an equitable diffusion. With a view, therefore, to these considerations, an attempt has been made in this paper to examine the case for the levy of income-tax on agricultural income.

The income-tax first made its appearance in India in the year 1860. Prior to that we find traces of taxes on professions, which were abolished in Bengal in 1836, in Bombay in 1844 and in Madras in 1860. The reason for the imposition of this tax for the first time in 1860, is to be found in the Mutiny, which left the country in a state of grave embarrassment. Before the transference of the Government to the Crown at the end of 1857, the country's budget had shown for eight years an annual surplus of over £1,000,000; while the accounts for 1856-57 showed a profit of £386,000 (East India Accounts and Papers). But the Mutiny threw the entire revenue system into disorder and continued to be the cause of budget deficits in the succeeding years. It was to remedy this situation that James Wilson introduced a tax, at the rate of 2 per cent on incomes between Rs. 200 and Rs. 500 and 4 per cent on incomes above Rs. 500. The model of the first Indian Income-tax was British.

Before we plunge ourselves in the controversy on the extension of the income-tax to agricultural incomes, it would be desirable to note the special importance of a general tax on income. To-day, it is one of the most important sources of revenue in all the civilized countries of the world. In Great Britain, the revenue from this source increased from 29 per cent in the pre-war year to 40 per cent in 1933-34, while during the same period it rose from 4 per cent, to 14 per cent in India, in the United States from 11 per cent to 50 per cent and in Japan from 9 per cent to 15 per cent. Immediately before the present depression, the percentages were still higher, for instance, in 1927-28 in Britain, India, the United States and Japan, the figures were 45, 20, 64 and 20 per cent respectively. Judging from these figures it appears that in future this source of taxation will play an increasingly important part with the progress of the country's industrial and commercial advancement.

When this tax was first imposed in India in 1860, no species of income was exempted from it. Unlike Great Britain, where there were schedules for farmers, income-tax on agriculture was charged under schedule "Income-tax from Real Property." However, those who paid less than Rs. 600 per annum by way of rent to landlord or land revenue to government were exempted from the payment of the tax. The tax was suspended for some time in 1865, but was reimposed in 1870 when the rates were fixed at 2 pies on incomes of Rs. 500 to Rs. 750, and 6 pies on incomes above Rs. 750. This time too agricultural incomes were brought under taxation. The general exemption limit was raised to Rs. 1,000 in 1872, but the tax was discontinued from the next year. It was reintroduced in 1877, this time as a license-tax on all professions, business and trades. But the old income-tax made its reappearance in 1886 for the third time on lines which made its permanent continuance possible. From this year onwards agricultural incomes have enjoyed total exemption. An unsuccessful attempt was made in the legislature in 1918 to tax agricultural income. However, in 1920, tea plantations which had hitherto enjoyed perfect exemption were brought under the Income-tax rules and one-fourth of their profits were declared as arising from manufacturing process and consequently liable to the tax. This proportion was raised to two-fifths in 1927.

It is one of the objects of this essay to consider whether the exemption of agricultural income effected in 1886 was at all justified and equitable. Let us pause for a moment to examine the arguments of landed interests against the inclusion of agri-

cultural receipts into the income assessable to income-tax. It is alleged that land pays not only the land-tax, but also cesses on land levied on the amount of land revenue payable which is utilised for the construction and repair of roads and the upkeep of schools. The Indian income-tax of 1886 exempted all profits arising from land on the ground that they were already assessed to land revenue. Exemption on this ground might leave some justification as far as peasant proprietors are concerned whose land revenue is subject to revision at recurring periods of 15 to 30 years. But in permanently settled tracts of Bengal, Bihar and Orissa, parts of the United Provinces and a part of Madras where landlord pays the same fixed amount from year to year, this exemption is hardly justified. Other minor arguments of landlords, *viz.*, violation of permanent settlement and discouragement of industrial enterprise among these cannot bear the brunt of the criticism and have no place before the major issue.

The unbiassed and sagacious remarks of Messrs. Wilson and A. Sconce regarding the exemption of land-holders at the time of the inauguration of income-tax in 1860 are worth noting. In this connection, it will be interesting to quote a few passages from Banerjee's *History of Indian Taxation*, "the question of the exemption of land-holders under the permanent settlement was discussed. Mr. A. Sconce observed that the clear purport of Regulation I of 1793, which legalised the settlement of estates in Bengal, was that the reassessment of these estates was for ever barred, but the law did not guarantee that the land-holders should never be called upon to aid in the relief of the future necessities of the government by contributing to their means or incomes. He argued, further, by referring to the first sentence of Regulation XIX of 1793, that the right to revenue from land was inherent in the state and was not a deduction by way of a tax from the profits of the land-holders. Mr. Wilson quoted extract from the Minutes of Lord Cornwallis and Sir John Shore to prove that it was not their intention to exempt the zamindars from a scheme of taxation, which would reach others. Nor in his view, there were the holders of rent-free tenures absolutely free from liability in respect of the general taxation of the country."

Landlords have tried to find shelter behind cesses or rates on land and pleaded against the inclusion of agricultural income for the purpose of income-tax. In 1871, the levy of a cess for educational purpose in Bengal aroused great controversy, but the liability of land to additional taxation was affirmed. It may be noted here, that the Secretary of State in his Despatch in 1871 regarding educational cess emphasised that objections in regard

to it were not applicable to income-tax of which he said: "it went directly into the imperial exchequer, and was applied precisely as the land revenue and all the imperial taxes were applied. But there is one thing, which that tax was not; it was not an increase on the public demand levied upon the zamindars in consequence of the improvement of their estates. It was levied upon a wholly different principle, and in respect of a wholly different kind of liability. One index and proof of this difference lay in the fact that, although this 'public demand' was made upon those to whom the promises of permanent settlement had been given it was made upon them only in company with other classes of the community, and with no exclusive reference to the sources from which their income was derived." Sir John Strachey also followed the same principle when he introduced Northern India License Bill of 1878: "It is, as I have already fully explained, an essential part of the policy of the government that this new taxation should fall both on the commercial and agricultural classes and that, so far as may be practicable, each class shall bear an approximately equal burden."

Coming to facts, agriculturists are heavily overburdened and it seems that there is no scope for any levy supplementary to land revenue unless the yield increases as a consequence of the changes in the methods of production. If this yield does not increase, Provincial governments cannot get anything out of the income-tax on agricultural income though various commissions and committees have suggested its imposition. The poverty of farmers and their uneconomic holding due to scatteredness and smallness hold out little hope of yielding revenue, because lower incomes below a specified sum have to be exempted from income-tax to make the burden equitable according to Income-tax Act. Before we accept the validity of the argument of cultivator's poverty against the imposition of the tax we should note that there are many persons who neither cultivate land nor pay land revenue but who still derive a part of their income from land. On other investments, they have to pay the income-tax, while agricultural investments are exempt. How far this step-motherly treatment to investments other than land, while favoured treatment to the real son, *viz.*, land, is equitable and justified is a point to be thoughtfully and impartially dealt with.

Those, who are opposed to the imposition of the income-tax on agricultural income, have tried to magnify administrative difficulties of assessment. As an argument against it, a statement by the Income-tax Commissioner of Madras Province, which

has been made use of by the Taxation Enquiry Committee may be mentioned: "It might be enacted, as I think it has been in England, that if a farmer does not produce complete accounts, the tax shall be a fixed proportion of his *Kist*. If estimates made on these lines were faulty, the remedy would be in the hands of the assessee, *viz.*, to produce accurate accounts (proving his receipts from and expenditure on land)."

It is a good thing that under the new constitution Act, taxation of incomes from land is to be Provincial. Primarily because it is supplementary to the land revenue, which is an important source of revenue for Provincial governments; secondly because the yield from this source depends upon the policy of Provincial governments and thirdly because the source of revenue cannot be transferred from one place to another.

A few supporters of the plan of levying income-tax on agricultural income advance an argument that the original income-tax was applicable alike to industrial and agricultural incomes. This does not, however, at all constitute a justification for its levy in the present. For, it might have been a blunder then needing to be rectified rather than continued. The question may still be allowed to take the form; why, when other incomes are taxed, should agricultural incomes be exempted? Here the fact that land revenue is already there assumes some importance. But is land revenue the same type of tax as the income-tax? If both the landlord and the state are regarded as joint-owners of land, the land revenue bears resemblance to rent. But if a landlord is regarded as a true owner of land, the revenue appears as a tax. Generally, there cannot be two owners of the same thing and it appears more justified to regard land revenue as a tax on landlord's economic rent. It does not follow from this, however, that a further tax on agricultural income would be unjust, because especially the higher strata of agricultural incomes go scot-free. Non-agriculturists are paying a tax on income, while agriculturists on economic rent.

The crucial point, however, is whether the income of those who pay land revenue is actually of the nature of economic rent or not. It is obvious that in the case of those who have purchased land under given schemes of land revenue and income-tax, the income from land is of the nature of interest. On such incomes, the imposition of an income-tax clearly amounts to an unjust double taxation. But, theoretically, there is still a clear justification for the extension of any increase in the prevailing rate of income-tax to agricultural income that is subject to land revenue. But the examination of the question of income-tax on

agricultural income does not require the consideration of only these points. Income-tax is only one imposition in the whole tax system of a country, and its principal advantage should consist in enabling us to rectify the mistake of unbalanced impositions in the rest of the tax system. Whether from a restricted and narrow point of view, the inclusion of agricultural income into the income assessable to income-tax appears justified or not, there is a clear case against such an inclusion if a broad review of the general tax system of the country reveals a disproportionately heavy burden on the payers of land revenue.

Bearing all these various considerations in mind, we could probably safely conclude that all the *arguments against the imposition of income-tax on agricultural income can be met by allowing a much higher exemption-limit in their case.*

This is all that an economist can say. But, the financial policy of a government is seldom dictated by purely economic considerations. Often, political aspects, of predominating economic question, assume a greater importance than other aspects. It is, therefore, for practical politicians to decide whether a tax that is economically just, is politically or socially expedient. But this problem has to be solved and the sooner it is done the better it is.

TARIFF POLICY IN INDIA¹

BY

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The Viceroy's views on Economic Policy.

Speaking at the Chelmsford Club on 28th November, His Excellency the Viceroy referred to certain political and economic tendencies in the modern world, and among them awarded the palm of importance to the policy of economic self-sufficiency which had been adopted by most countries of the world irrespective of their political structure. In tracing the causes of this universal tendency he pointed out the efforts of states to regulate and control their internal economy. In view of the fact that a greater part of the world was rapidly moving in the direction of national control of economic functions, internal trade was bound to be largely determined by the same. Further, in view of the fact that public opinion throughout the world was becoming increasingly interventionist, His Excellency drew the conclusion that these tendencies were not likely to be short-lived. He referred to the fact that the new protectionism was vastly more complicated than was the old and much more effective in its application. In fact, it was a part of a rigidly planned and directed economic system. The Viceroy further pointed out the fact that this tendency was common to all forms of government at present. These views which have been summarised as far as possible in the words of His Excellency were uttered with personal experience and knowledge of things in Great Britain, and with a full consciousness of the responsibility that he now holds.

The Viceroy did not make it clear as to what particular line of action he and his government intended to adopt for this country in view of the changes in the world. His concluding remarks referring to India were as delightfully vague, as his remarks referring to the rest of the world were emphatically clear. The appeal to face facts and to promote cooperation

¹ Paper submitted to the Indian Economic Conference, Agra, 1936. For the purposes of this paper, I have freely used material from my publications, chiefly *Industrial Policy of India* and *Madon Memorial Lectures*.

between the different national economic systems and within the British Empire, and to shape our economic policy with due regard to the limitations upon international trade which have now come into existence, and are likely to continue, are good sentiments but capable of different interpretations as far as practical measures to implement the same are concerned. In consequence, we find that exponents of Imperial Economic thought have begun preaching that India should have the great wisdom of not involving herself into this evil economic system in which the rest of the world has been engrossed. The evils of the present system have been analysed by experts who often meet at Geneva, but whose counsels have not received recognition in their respective countries. If facts have to be faced as the Viceroy rightly put it, the theoretical attitude of such imperial exponents, who want us to ignore these facts should be treated with the contempt which it deserves. It should be obvious to anyone with any sincerity for Indian economic progress that the time has not only arrived, but is long overdue, when the state in this country should control and regulate economic activities to a much greater extent than at present, if India is to hold her own in the rapidly changing march of events in the rest of the world. We may deplore the evils of protectionism, but we cannot in the words of the Viceroy ignore the fact that it has come to stay. If we do not want to be too late we should devise prompt remedies for a rapid reorganisation of our internal economic life, so that it may be strong enough to stand the impact of external economic events over which we can have no control.

Test for Indian Tariff.

The tariff policy of India should be considered in the light of these facts. The tariff has been accepted as an instrument for the development of industries in India since 1924. It has been further used to regulate trade with other countries by means of the Ottawa Trade Agreement and the Indo-Japanese Agreement, both of which are about to be replaced by new agreements. The question is how far the tariff has served the purpose for which it has been used, and in what directions changes, if any, should be introduced. The need for commercial treaties need not be emphasised in the present conditions of world trade. What needs to be emphasised is that such treaties should be based on the principles of reciprocity and equality with other countries, and that they should form part of the larger effort for the economic advance of this country. So far as the development of industries is concerned one or two prevailing misconceptions

may be considered. It is often assumed in responsible quarters that our dependence on agriculture is so great, and our capacity to develop industries so limited, that we should concentrate on agricultural improvement, and not on industrial progress. Figures of the percentage of population absorbed by existing industries are quoted to show the small extent to which industries can help us. In using these figures the indirect creation of non-agricultural avenues of employment due to the development of industries is not taken into account. The fact that with the growth of each large scale industry, several dependent and allied activities come into existence, and that trade and transport agencies get an impetus are often forgotten. At the same time, in talking of industrial progress the position of small industries is often overlooked. In a country like ours, the growth of small industries in the rural areas can in the aggregate do more to help economic progress, than large industries which generally flourish in urban areas. The few steps taken by the government in this connection in Bengal and Bombay point in the right direction, but they must be pronounced as insignificant compared with the magnitude of the task that is before us.

In a rapidly changing world in which industrial countries are trying to be agricultural by protective methods, agricultural countries like ours will find export markets for our raw materials and food stuffs shrinking. The only alternative for us is to devise immediate ways and means to absorb our agricultural commodities with the country, in further productive processes, that is by the development of industries. If this involves economic self-sufficiency or economic nationalism or a policy of protectionism, this is a situation which is inevitably forced upon us by changes in the outside world; and it is a position which we must be willing to face, because if we ignore it, we are bound to be faced with disaster. In other words, there is no opposition between agriculture and industry, as is sometimes made out in interested quarters; they are interdependent and more so now than ever before. The working out of that equilibrium between these two aspects of our national life, which will enable us to make the business of agriculture profitable and the growth of industries unassailable, should be the determining factor in shaping our economic policy in general and tariff policy in particular.

Discriminating Protection.

Viewed in this light the existing policy of Discriminating Protection has become out of date and needs a thorough revision.

Without going into minute details a rapid review of the principal conditions of Discriminating Protection in its practical application will show the truth of these remarks.

(a) Abundant Supply of Raw Materials.

The first condition of Discriminating Protection is an abundant supply of raw materials. The rigidity of this test was soon realised by the Tariff Board, and therefore it had to put a liberal interpretation on the same. For example, aspen is essential for the manufacture of matches, but is not grown in India. This is, however, a peculiarity of the match industry, because no country in which matches are made is self-supporting, in regard to all or most of the raw materials required. The same was the case with the worsted branch of the Indian woolen industry. It may further be pointed out that for the manufacture of piece-goods of higher counts long staple cotton has to be imported. Similarly, paper manufactures have to import pulp, though the production of pulp within the country is now on the increase.

(b) Abundant Supply of Labour.

The second condition of Discriminating Protection is that there should be an abundant supply of labour. So far as unskilled labour is concerned, the supply is abundant though it has its own other problems. The application of this condition to skilled labour will however create difficulties because such labour is not abundant in the country. The rigidity of this condition has therefore to be relaxed; and arrangements have been suggested for improving the supply of skilled labour in future. The only way to do so is to train a sufficiently large number of Indians for skilled and superior work. This can be done, partly by having suitable technological institutions and partly by training Indian apprentices in factories or by a combination of both. We have a desirable tendency on the part of Indian Universities to encourage technological education. The Government of India are also moving in the same direction. For example, a school of sugar technology is now conducted by the Imperial Council of Agricultural Research, and a new organisation for Industrial Research has been started. In spite of these arrangements, the progress is rather slow because Indian apprentices do not always succeed in getting suitable opportunities. The Tariff Board pointed out the apathy of the paper industry in this connection; this industry is mostly under foreign control. Unfortunately, in some industries which are under Indian control, foreigners

still continue to hold the superior appointments. In order to make up for these defects, it should be a condition to the grant of protection to an industry, that it should make arrangements for the training of a suitable number of Indian apprentices in such a manner, that at the end of a given period, they could dispense with foreign skilled labour altogether.

(c) Large Home Market.

The third condition of Discriminating Protection is that the industries seeking protection should have a large home market. This condition is generally desirable. But an undue insistence on it as a condition precedent is bound to make progress difficult. Most of the advanced industrial countries depend on export industries and take steps to encourage them by State assistance. We in this country have the tea and jute industries which are primarily export industries. In view of the policy of other countries which are now developing their agriculture, the outlets for our raw materials are becoming narrow. It is essential therefore that we should be able to absorb our own raw materials in our own factories, and if necessary, export manufactured goods. In view of this, the condition of a large home market is bound to be a serious handicap in our progress. It is of interest to point out that British industries when they receive protection are not required to fulfil such a condition. If Britain helps industries fed by foreign raw materials and dependent on foreign consumers, there is no reason why India should not encourage industries which can be fed by her own raw materials, irrespective of the market.

(d) Industry should be able to dispense with Protection ultimately.

The other condition of Discriminating Protection is that the industry should be able to dispense with protection ultimately. If this condition means that the industry should not have protection for all time, it is a desirable condition. In other words, if it is to be applied after an industry has reached its growth, there need be no objection. If an industry is granted adequate protection for a reasonable period and has a guarantee of steady growth and State support till it reaches maturity, it is in the fitness of things, that thereafter protection should be withdrawn. But instead of this, when this condition is applied in anticipation, difficulties are bound to arise. No body of experts can predict that a particular industry will be able to dispense with protection altogether after a given time. The

factors in this connection are so many and are of such changing complexity, often beyond the control of the parties concerned, that a reasonable anticipation of the time when protection can be withdrawn cannot possibly be made. What has happened thereby is that protection is given for short periods usually of three to five years at a time. This is followed by enquiries into the condition of the industry and consequent uncertainty about the future. We do not suggest that there should be no enquiry, in fact we would prefer a continuous inquiry, as will be pointed out later. A change in the measure of protection which is implied according to the existing interpretation of this condition at frequent intervals, is not conducive to the growth of industries.

The Consumer.

In view of the foregoing observations, the policy of Discriminating Protection should be substituted by a more aggressive industrial policy, without those limiting conditions which hamper the growth of industries. The real object of the policy of Discriminating Protection was to safeguard the interests of the consumer. This object can be achieved in other ways. The incidence of protection can be studied and relief given in cases of hardship wherever necessary. The way in which such adjustments are made has been illustrated in practice by methods of giving relief to the consumer in cases of unequal incidence as adopted in Australia.

The Use of the Tariff.

The conclusions that I derive from this discussion are that the tariff policy of India should be considered an instrument:

(1) to develop the industries of the country both for the home and foreign markets and to utilise our raw materials in manufacturing processes within the country; and

(2) to regulate the foreign trade of the country by means of treaties made on the principles of equality and reciprocity, and designed to supplement the economic policy outlined in (1).

The Tariff Board.

In order that we may be able to work out and maintain a tariff for this purpose, we should have an adequate machinery. The existing machinery namely that of the Tariff Board is not adequate for this task. The Tariff Board as now constituted does not fulfil even those conditions which were laid down by the Fiscal Commission. There are well-known defects in the

method of appointing the Board, as well as in the procedure adopted by the government in connection with applications for protection. The Board suffers from lack of continuity, has no fixed tenure and has a changing personnel. It is no wonder that often it becomes dependent on the Executive, and has been responsible for certain unusual departures in the industrial policy of the country.

Nature and Functions of the Tariff Board.

To remove difficulties of the kind pointed out above and to have a competent body that will be able to discharge with efficiency, impartiality, and independence, the work of suggesting changes in the tariff to suit the policy advocated above, we should have a Statutory Tariff Board, whose functions, qualifications and powers as well as tenure should be defined by an Act of the Indian Legislature. Such a Board should have power to investigate both on its own initiative, and on the application of an interested party, or on account of references by the government, problems relating to the development of industries. It should make a continuous study of the trade movements, tariff changes, and prices in the world, particularly those in which India is interested directly or indirectly. It should report on the working of the Indian tariff and its results, and make suggestions for suitable changes whenever required. The Board should watch the working of existing commercial treaties with other countries, and suggest new ones if likely to help in the industrial progress of the country. The form, the classification and other technical aspects of the tariff should be reviewed by the Board from time to time, with a view to improve them in the light of the requirements of the trade on the one hand, and of the latest improvements in other countries on the other.

Special questions relating to tariff and industry, such as alleged cases of dumping, schemes of Imperial Preference or of Empire Trade Agreements, complaints against manufactures abusing the protective system, should be first investigated by the Board before any action is taken.

In order to safeguard the interests of the consumer, and to see that the cost of protection is not heavy on the one hand, and its incidence is evenly distributed on the other, the Board should make a study of these questions and make recommendations for necessary changes in the protective scheme, or suggest other relieving measures.

The Personnel of the Tariff Board.

If the Tariff Board is to carry out these functions adequately, its composition should be considerably enlarged. We may suggest a personnel of seven. The members should be drawn from people with high qualifications, such as industrial and administrative experience as also the knowledge of economic problems. They should be above party politics, and should have a thoroughly national outlook. Some of the members should be associated with the work of International and Imperial Conferences dealing with economic questions, and should have opportunities to study on the spot the tariff systems of other countries.

The status of the members of the Board should be that of High Court Judges; they should have a permanent tenure, with an age limit. They should be debarred from promotion to other offices under the Government or Indian States, and also from taking to an industrial career in any shape or form.

With such a personnel and such wide functions as defined above, the Board will command the confidence of all parties. It will not then be possible for the Government to change the scope of the enquiry or the functions of the Board, as it now does by laying down certain terms of reference. By the method adopted by the Government in connection with the last Tariff Board, the scope of the inquiry was restricted to a particular definition of the measure of protection. Such methods cannot inspire confidence in the work of the Board nor in the policy of the Government.

Power to compel Information.

At present the Board has no power to compel parties to give evidence. Cases have occurred in which the Board has been ignored by certain large sections of an industry and in others information has been withheld. The hesitation of the industrialists regarding the confidential nature of the information given will disappear, if the Board is constituted on the lines suggested above. In that case, the utility of the Board should be enhanced by empowering it with adequate powers to compel parties to give the information required.

Publicity and Prompt Action.

On important method of ensuring that the Tariff Board inquiries bear the desired fruit is publicity. The report and proceedings should be published within, say, three months of the date of submission. The Executive should make up its

mind within that period, and should not have the power to delay matters, as they have done in several cases. The Legislature should have the power to compel consideration of the report soon after publication. Special sessions of the Legislature should be convened, if necessary.

Conclusion.

We are living in an age of economic nationalism. A rigid system of protection and regulation of trade are the features adopted by most countries. This system is not likely to be short-lived. We in India should be willing to face facts and reorganise our economic life to suit the new environment. The policy of Discriminating Protection viewed in this light is out of date, and not adequate for our purpose; it must be thoroughly overhauled. The principles of equality and reciprocity need to be emphasised in the making of our commercial treaties. To bring about a thorough change in our policy which has been outlined above, an adequate machinery in the form of a Statutory Tariff Board, with an enlarged personnel, independent powers and permanent tenure defined by the Indian Legislature should be created. Arrangements should be made to introduce timely changes in the tariff to safeguard and promote our national economic interests, and to bring about a proper equilibrium between agriculture and industry.

SOME SECOND THOUGHTS ON OUR FISCAL POLICY

BY

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I

Fiscal Policy controversies have an uncanny knack of creating and maintaining a sharp cleavage of opinions amongst those who participate in them, so that there appears to be much truth in the adage that one is born either a freetrader or a protectionist. On the one hand, those who have drunk deep of the virtue of *Laissez-faire* at the fountain of classical economics with all its checks and balances, its artificial schemata of stationary states, its assumptions of *ceteris paribus* and its natural harmonies of mutually helpful self-interest, become willing slaves to its axioms and formulæ, believing that "Free Trade, like honesty, still remains the best policy." On the other hand, the protectionists, like fallen angels, have big odds to work against, and their case, though mainly spoilt by under-statement, by mere negativist attacks on the established doctrine and by frequent appeals to an insensible nationalism, has received a better treatment in practice than in theory. The whole controversy is an impenetrable jungle and, perhaps, a decisive solution is impossible, for the issues that are raised therein move on different planes and in different dimensions. The reasons for this state of affairs are many and obvious. In the first place, there are differences due to theoretical training: one, who has been brought up to suppose that all that there is worth knowing in economics is in Marshall or Ricardo, can hardly bear the new-fangled cant of a follower of List or of Schmoller; and *vice versa*. In the second place, the difficulty of what may be called "double experimentation" on a given material in the same place, environment and time, which is inherent in most social sciences, stands in the way of pronouncing an unequivocal opinion as to whether a particular fiscal policy was more or less beneficial than its rival could have been. In the

third place, even supposing that "double experimentation" were possible, the further difficulty of estimating the *orders of magnitude* of various forces and their effects in the medley of international economic events still exists. In the fourth place, the relativity of all economic doctrine compels us, chameleon-like, to take the colour of the environment. It is this relativity that explains the Mercantilism of England prior to the Industrial Revolution, her *Laissez-faire* of two centuries thereafter and her hesitating protectionism of today; it is the same relativity that explains to a large extent the protectionist fervour of List and Carey, citizens of two typical countries with unlimited but then unrealised potentialities of industrialisation. In the last place, the inherently difficult nature of the subject involving as it does the keeping "at the back of our heads," as Keynes would call it, "the necessary reserves and qualifications and the adjustments"¹ which we have to make after a formal manipulation of our thought-apparatus, and, moreover, necessitating an ambidexterous handling of two or three of the most difficult techniques of economic theory (such as the theory of prices, the theory of foreign exchanges and the theory of real economics and barter)—this has undoubtedly been a lion in the path of many. Fools are apt to rush in, therefore, where angels fear to tread; but, unfortunately, in economic affairs, one has to run the gauntlet of criticism and, whether fool-wise or angel-wise, knock at the door of the temple of the "economic" Muse, for the question of the hour brooks no delay.

Indian economic thought² has been, in this connection, largely influenced by Cambridge and London (both citadels of Free Trade) in recent years, while the lay public has been mostly guided by cheap appeals to national sentiment. The Infant Industries argument, which is the corner-stone of the doctrine of Discriminating Protection has been generally admitted by free-traders and protectionists alike as invulnerable and it is this that has so far received the blessings of the officialdom and of respectable economists in this country. The Fiscal Commission of 1921-22 also, after reviewing the industrial position of India in a manner which would suggest a protectionist policy of a deeper shade, finally plumped for Discriminating Protection. The respectability complex of this doctrine was such that it had satisfied both prigs and slovens alike till recently, but it is the habit of the human mind that it is seldom contented with the *status*

¹ *General Theory of Employment, Interest and Money*, p. 297.

² Barring a few notable exceptions like V. G. Kale and Coyaji.

quo, whether it be of the one or the other kind and would "pine for what is not." Well, our own Discriminating Protection has come in for criticism both on the ground that it is not sufficiently discriminating and on the ground that it is too much so. The true criterion of policy, however, does not necessarily lie between these two opposite views; it may well lie outside both, at any rate, so far as the Indian economy is concerned. But one thing is certain and it is that the anti-protectionist feeling in the country is steadily gaining ground both because it is being assiduously nursed by official support and because the exigencies of the times would seem to assist it in some ways.³ Consequently, there pervades today in our country a free-trade-cum-preferential atmosphere with which economic opinion as well as political action has to reckon in the formulation of a policy. I do not propose to dwell here on some of the well-known facts of recent occurrence, such as the winding up of the Tariff Board establishment for reappointment on an *ad hoc* basis (contrary to the recommendation of the Fiscal Commission which had required a permanent body for "post-mortem" investigation), the refusal to consider fresh applications, the turning down of the Tariff Board's proposal of protection to the glass industry, the irregular procedure followed by the Government in connection with the Ottawa Agreement almost since its inception, the new appearance of preference under the garb of Empire Free Trade and bilateralism and the general mutilation of Discriminating Protection. I am not one of those who think that fiscal policy is a matter of any political import and that, therefore, there has to be a compromise between what economic theory would dictate in regard to a particular situation and what the politicians would desire; on the contrary, it is my firm belief that the present problem is wholly *economic* and must be tackled in none but a scientific spirit and that this must be done without fear of or favour to any section or group that can be isolated from the country as a whole. We, Indian economists, shall be abdicating our duty, if we allow our economic dicta to be quoted and freely bandied about in a manner that would be harmful to the immediate or ultimate interests of the country, for strangely perhaps, we are quoted more for our admissions than for our advice by the Government of the day.

³ Among the earlier writers, K. T. Shah, Vakil, Kale, Coyaji and others have in their well-known monographs generally supported Discriminating Protection. Recently, H. L. Dey (*Indian Tariff Problem*), and my cousin, B. N. Adarkar (*Indian Tariff Policy*), among others, have cast doubts on the success of the policy pursued.

The time was, thus, never more opportune than today for a reconsideration of the whole gamut of questions relating to the fiscal policy of India and, perhaps, for a reassertion of those principles which our elder economists and statesmen have wisely regarded as fundamental to the economic regeneration of the country. It is a happy augury, moreover, that this reconsideration is possible under the auspices of one, who, as an ex-President of the Tariff Board, has been here to guide our deliberations.

II

The general argument of Free Trade rests upon the classical theory of international values, comprising within itself the notions of comparative costs and reciprocal demand. The theory of international values was a subject for discussion at the Patna Conference and much light was shed upon the various aspects of that theory. The discussions of that Conference revealed three main strands of thought, all in the direction of renovation of the classical doctrine which, admittedly, was in the melting-pot. (i) In the first place, it was agreed that the valuation is on all fours with the pricing mechanism (mutual interdependence of prices) and that it is not merely reciprocal demand but total demand (including both internal and foreign demands) which determined the "values." (ii) Secondly, in a world that was entangled in a maze of tariffs and trade restrictions, the ordinary postulates of international trade theory did not apply and what *was* was not the result of a free interplay of forces such as what the classical theory would lead us to suppose but of the mingled action of distorting economic policies. (iii) And thirdly, that, though a capitalist monetary economy was the determining condition of a modern international trade, this could not necessarily be the case at all times; that where, as in Russia, comparative costs (determined by capitalist motive) were disregarded, welfare was not lessened in consequence.⁴ Such is the trend of modern thought in these matters, rediscovered and revealed by us at Patna. I mention these conclusions here to avoid repetition of the first principles of our present subject. If these are borne in mind, we shall, I believe, be getting a correct perspective in today's discussions.

⁴ See the following papers : Kale, *Theory of International Trade*; Gyan Chand, *International Trade and Recent Developments*; also my own contribution and those of B. K. Madan and S. R. Bose, on the same subject.

The first thing that emerges from a reconsideration of the theory of fiscal policy, then, is that the theory is based very much on what tends to be rather than what *should* be and this is a drawback, for what tends to be is not necessarily for our good. Thus we might well admit, as a first approximation, that international trade tends to redistribute the world's activity on the lines of division of labour, but we hardly ever disabuse our minds of the illusion that international division of labour is at all times for the best, an illusion which finds its expression in apophthegms such as that "international trade is doubly blessed, for it blesseth both him who selleth as well as him who buyeth." This assertion might seem rather revolutionary to those who have comfortably lulled themselves into acquiescence in the classical harmony of division of labour.⁵ But it is this mainstay of the free trade position that needs to be carefully scrutinised. In the words of Schmoller, "The freetraders forget that unrestricted Free Trade between all countries brings about increasing sales and rising prosperity for the countries favoured by Nature and historic development, but in the case of those neglected by Nature it may easily rob them of their industries, or even in certain circumstances of a portion of their population. No people with a national consciousness can permit that without defending itself. *The consolation that Free Trade is effecting a cheaper and better production somewhere else in the world, cannot satisfy the countries thus injured.*"⁶ The trouble with free-trade theorists, as with monetary deflationists, is that they concentrate on the

⁵ Even Keynes, who, like Beelzebub, has risen against the authority of the classical Olympians, concedes that "the advantages of the international division of labour are real and substantial" (*General Theory etc.*, p. 338). But he does not tell us whether these advantages are cosmopolitan or national, or, whether they are present under all circumstances alike or under certain conditions only, or whether they are compatible with the ideal of full employment postulated by him. Nor is it clear whether the advantages are to be weighed in terms of the values of a capitalist economy with its artificial conditioning factors of unequal distribution of wealth etc. Moreover, his final conclusion, that "It is the policy of an autonomous rate of interest, unimpeded by international preoccupations, and of a national investment programme directed to an optimum level of domestic employment which is twice blessed in the sense that it helps ourselves and our neighbours at the same time," and its corollary that "it is the simultaneous pursuit of these policies by all countries together which is capable of restoring economic health and strength internationally, whether we measure it by the level of domestic employment or by the volume of international trade," (p. 349), are not quite in consonance with the idea of international division of labour.

⁶ *Grundriss der Allgem. Volkswirtschaftslehre* II, p. 607. (Italics mine). Cf. also Grunzel, *Economic Protectionism*, p. 8 *et passim*, and Edgeworth, *Papers relating to Political Economy*, vol. ii, p. 7, where he admits that the distinction

virtues of consumption to the exclusion of the agencies of production; and yet, it is perhaps a truism to say that a country which does not produce wealth cannot consume it either. Thus, a country which is in a backward condition and which, prior to trade, was specialising in particular industries as a staple source of wealth, finds itself suddenly confronted by the superior technical skill of another country, which by its low costs virtually kills its industries and thus destroys its main source of wealth. Such a country then has to fall back on other necessarily less advantageous avenues of production with a resultant diminution in wealth—a diminution which cannot always be made up for by the fact of the cheapness of foreign goods: for, it is not sufficient that foreign goods are cheap; the country must have exchangeable wealth wherewith to buy them and if production suffers, consumption is bound to diminish.⁷

There is yet another very important objection that can be raised against the classical position. The general theory of values derives itself from the fact that there is a pull on production and valuation from those sections of the people who wield the money power and this pull is necessarily conditioned by the present distribution of wealth and income. It is for this reason that maximum output is not a concept that is coterminous with maximum economic welfare. The drama of international trade is just another aspect of this general valuation of economic goods and the consequent division of labour (which might result from the unimpeded action of economic forces under the present capitalist system and which is, therefore, regarded as a worthy ideal by most people) is just a reflex of a distorted system of production, incapable of maximising welfare. On what grounds, then, can we say (in a general way) that international division of labour will maximise economic welfare either internationally or nationally? I do not know if extreme nationalism would maximise it either: when wealth is so disparately diffused as between man and man, and nation and nation, there may be an infinite number of probabilities within the range of probabilities presented by the theoretical extremes. My conclusion, therefore, is that, under a capitalist system of values, there is no conclusive proof that international division of labour (as a general proposi-

between cosmopolitan and national interests is not borne in mind by the English writers. Mr. Gladstone once asked "why, if protection is a good thing, it should not be adopted by the United States in their *internal trade*"!

⁷ The case of India since the middle of the 18th century would be a good case in point here.

tion) could maximise economic welfare. On the other hand, in a socialist state, where presumably there may be a more natural system of valuation based on free and equal wealth, the true benefit of division of labour might become fully available; but it may be hard to find a socialist state wherein there is no interference with the processes of costings and valuations of an equally arbitrary kind. Thus, the fiscal policy conundrum does not lend itself to any Gordian-knot methods and any doctrinaire adherence to free trade or protection is full of pitfalls.⁸

Most free-trade theories start from the assumption of a full employment of national resources and then proceed to discuss alternative ways of distributing those resources in production. As a first approximation it may even be granted, for argument's sake, that, in conditions of full employment, free trade is capable of providing the best among alternative uses; but what does this conclusion come to when the assumption of full employment does not materialise. Whether or not protectionism is capable of securing full employment is a separate issue which will be discussed presently; here we are looking at full employment as an assumption rather than as an ideal. It is quite possible that the resources which *are* employed are enjoying an optimum distribution among industries on the "division of labour" plan, but what about the unemployed resources? And, free trade is quite compatible, nay, can often be the cause of serious unemployment in a backward and undeveloped country, (like India) with a growing pressure on agricultural land of a population which cannot find any outlets into alternative channels of production. What consolation is there in being told, in such circumstances, that consumers would be benefiting by cheaper imports? There is clearly here a clash of interests between producers and consumers, which cannot be got over by saying that all production is ultimately for consumption or that producers and consumers are the same persons. Producers here, in an especial sense, are the owners of the employable factors of production including wage-earners; if their interests are harmed, *i.e.*, if unemployment prevails, a large body of the unemployed persons and owners of unemployed resources will have to restrict their consumption, while only those who derive fixed incomes and *are*

⁸ Cf. Wickseil, *Finanztheoretische Untersuchungen*, pp. 63 ff., where he admits that the free-trade doctrine generally assumes that "every member of the community is provided with the various productive powers (land, capital etc.) exactly in proportion to his own needs, . . . in other words . . . an equal distribution of wealth."

actually employed will be better off. Still, it is doubtful if total consumption or total economic welfare will be greater.⁹ It is, therefore, a correct approach of Keynes (in his *General Theory*, Chapter 23) to stress the question of employment in this connection as this, indeed, is the fundamental issue between free trade and protection. The possibility that a restriction of imports, by establishing a favourable balance of trade may cause an inflow of gold and thus prevent unemployment by maintaining the flow of investment, or even increase employment through an augmentation of that flow, is undoubtedly a valuable salvage.¹⁰

This paper is not intended to countenance any insensate programme of protectionism which would grow melons in Sahara and ostriches in Piccadilly; my criticism is directed only against what Keynes¹¹ calls the "inadequacy of the theoretical foundations of the *Laissez-faire* doctrine" on which we have all been brought up, and against the self-complacency and respectability

⁹ Cf. Schüller, *Schutzzoll und Freihandel* for a general reasoning somewhat along these lines.

¹⁰ My cousin, B. N. A., maintains, *inter alia*, that (i) the success of the Keynesian policy of stimulating employment depends on our ability to maintain a favourable balance of trade, (ii) that the policy might defeat itself if it led to a rise in domestic costs or an increase in the volume of foreign lending in excess of the foreign balance, (iii) that the theory does not apply with the same force to a country on an independent standard. The first portion of this view, has been dealt with later on in the text on the fallacy that "exports pay for imports." As regards the second part, the only relevant point is whether protection would bring about an equal rise of prices and costs, and, secondly, whether it would stimulate foreign lending in excess of foreign balance. There is no proof that either would happen: costs would indeed rise internally, but protection merely would affect the "international" industries and their pull on the market for factors of production being less than that of internal industries, there is no reason to suppose that domestic costs would rise in the same proportion as the prices of protected goods. On the other hand, there is equally no reason to suppose that protection would by itself stimulate foreign lending in excess of foreign balance; what will happen generally is that a part of the foreign balance will be accepted by foreigners as loan, part being paid in gold or silver. As regards the third point that the theory does not apply with the same force to a country on an independent standard, there is, of course, the feasibility of stimulation of internal investment and of the propensity to consume within the independent monetary system, but if no action is taken in that direction, reduction of imports might also be helpful in increasing home investment or foreign investment or both through the greater marketing opportunities thus created internally. At any rate, India is not a case of an independent standard and the part played by gold elsewhere is played here by sterling, so that Keynes's remedies apply with as much force to India as to a gold country.

¹¹ *Op. cit.*, p. 389.

of that section of the faculty of economists, who "have been guilty of presumptuous error in treating as a puerile obsession what for centuries has been a prime object of practical statecraft." The general case for Free Trade would thus appear to rest on far less secure foundations than a mere preoccupation with the notions of "natural advantage" (which, by the way, is somewhat of a hen-and-egg puzzle), the harmonies of self-interest, international division of labour and comparative costs would lead us to believe. When we pass from the general to the particular case, we have to admit so many limitations to the classical doctrine that the practical aspects of a free-trade policy seem even less attractive. In the words of Edgeworth, "There are two degrees of abstraction which may usefully be employed in general reasoning about International Trade. We may contemplate each nation as a whole, making abstraction of the non-competing groups within it, or we may take account of those internal divisions. It is thus that the astronomer may sometimes calculate the motion of a planet about its axis and the orbits of its stellities, and in other reasonings, with reference to the action of a distant body, may neglect those internal movements and treat the Jovian or the Saturnian system as if it were a weighty particle. In economic science the more abstract methods have been hitherto the more fruitful."¹² General free-trade theory is, thus, merely a first approximation true perhaps so far as it goes, but in the secondary and tertiary approximations, its application seems to falter. In the first place, exceptions to the general free-trade position have been accepted by leading free traders, like Marshall and others. For example, Friederich List's argument¹³ in favour of (1) "wealth-producing capacity" and (2) infant industries and such other cases has already been incorporated by the freetraders into their doctrine. This is common knowledge. What is, however, generally not recognised is that the argument in favour of the power of producing wealth and that in favour of infant industries are not the same, but different in their scope and application. The former is a general and wider principle which is, as Pigou admits, "particularly strong as regards an agricultural country wishful to develop manufactures," for in such a one the *cumulative* effects of industrialisation are more far-reaching than in an old-established manufacturing country.¹⁴ The latter is a

¹² *Economic Journal*, 1901, p. 585.

¹³ *National System*, p. 300 ff.

¹⁴ *A Study in Public Finance*, p. 221.

piecemeal affair necessitating various checks and balances and a strait-jacket of conflicting formulae.

There is, however, another deep-rooted fallacy lurking in the minds of many which will have first to be exorcised if any progress is to be expected in our discussions: that fallacy is the time-honoured theory that "Exports pay for imports," and that, therefore, any reduction of imports will have a boomerang effect on exports reducing them almost to the same extent, so that the advantages of protection, as regards the balance of trade or employment or internal development or an increased national dividend, would be merely illusory. Any advantage, in brief, will be balanced by a corresponding disadvantage and nothing would come out of nothing. In other words, the whole business will be something like a Chinese mandarin trying to pick himself up with his own pig-tail! Examples of this fallacy are almost limitless, but perhaps a topical one can be given in illustration. It is said that if India buys less of Java sugar, Java will buy less of Indian export and to substantiate this proposition actual figures are quoted to show that as from the date of the Sugar Protection Act, *viz.*, 1931, Indian exports to Java began to fall rapidly. Now, it is one of the tragedies of the statistical science that when it teaches us to put two and two together it does not give us the faculty of seeing that we do not put two and three together to make four. This, then, is a clear statistical lie. In the first place, modern international trade, unless it is hemmed in with pacts of bilateralism or actuated by a purposive malice aforethought, does not take cognisance of bipartite trade in this fashion. There is no proof that Java either entered into a bilateral pact with India or intentionally reduced its purchases from us. But there is at least one very good reason why our exports to Java fell both absolutely and proportionately as from that year, 1931, and that is the reason of the economic background conditioned by the Slump and by the fact that practically at the same time, Java, the Dutch East Indies (as a whole) and also Holland were isolated from us by a progressively deflationary guilder which practically impoverished the whole area and necessitated the erection of tariff walls, quotas and exchange restriction schemes.¹⁵

However, to turn to the analysis of the matter, in the first instance, it is multiangular rather than bilateral trade that is relevant here: if import duties have shut out Java products, the

¹⁵ Cf. similar statistical balloons floated by some writers in connection with the Ottawa Agreement, to show simultaneously (a) the gain and (b) the loss caused by it.

repercussions of this, if any, will be felt not only in trade with Java but with the rest of the world, through multiangular channels, *i.e.*, wherever Java has any trade connections. Thus, the relevant balancing is between India and the rest of the world. Secondly, in the equation of the balance of payments of India and Java, as of every other country, there are items other than visible goods (which are the object of fiscal policy): they are, invisible goods and services, treasure and securities. The transactions in each of these, more or less, constitute a different series without any direct relation or interdependence between them *inter se*. Each series, again, is in different hands and is based on a different elasticity of demand which is governed by the relative prices of the goods and services in question at home and abroad, and in the case of securities on the relative rates of interest at home and abroad¹⁶. Through the mechanism of the foreign exchange market, each of these series, again, is credited or debited to the account of each country and it is one of the elementary laws of that mechanism that the various series mingle in such fashion that from time to time the balance-sheet of each nation exactly balances. Thus if imports into India are partially shut out, there are different possibilities in which the deficiency thus caused on the *debit* side may be corrected: thus, gold or securities may flow into the country, or even perhaps the invisible items may step into the balance. It is not necessary to deny that instead of the debit side being thus corrected, the credit side itself might suffer a reduction. But the changes, whatever they are, will depend upon two things mainly: (1) the relative elasticities of demand for our exports in foreign countries and (2) the mobility of the various items in the balance of payments. I submit that the readiness with which, apart from retaliatory tariffs (which cannot be regarded as a simultaneous reaction *throughout the world* against, say, India), foreigners can give up buying our exports is grossly exaggerated by the critics of protectionism and that such critics have neglected to consider the facts that both gold and capital are more mobile and that, therefore, they will move first before reduction of exports if possible¹⁷. The argument of the critics

¹⁶ Keynes, *Treatise*, vol. i, p. 163, and pp. 326 ff.

¹⁷ This whole controversy was recently staged in England. Cf. Keynes, *Treatise*, Vol. i, pp. 326 ff., and vol. ii, pp. 188-9, also the *Addendum* to the Report of the Macmillan Committee; Beveridge and others, *Tariffs, the Case Examined*, pp. 56 ff., and 244 ff.; letters of Mercator and Keynes to the *Times*, on the 21st and 31st March 1931; Keynes' and Robbins' articles in the *New Statesman and*

of this theory is that foreigners may not be (a) *able* and (b) *willing* to borrow or send out gold to fill in the gap of their adverse balances of trade. First, then, as to willingness: It is not correct in the first place to suppose that the people who are engaged in the various series of transactions pertaining to exports, imports, borrowing and lending and dealings in treasure are identical; thus the unwillingness of the exporters cannot affect the psychology of the importers etc. Reduced imports work through the exchange rates upon the terms of lending in the countries concerned, in so far as the monetary authorities in the rest of the world have to raise their bank rates, i.e., to signify willingness to borrow, when their balances of trade become adverse, and gold begins to flow out. Even in the case of independent standards, if the exchanges are allowed to find their own level, adverse balances of trade through causing exchanges to fall stimulate both gold and securities exports (on private accounts) these being more mobile than goods exports, and especially repayment of foreign credits begins to reverse the flow of foreign investment (as, e.g., happened in the case of England after 1931). There is no question of willingness, therefore, for the action of economic forces is inexorable, in this case. As to ability, some writers have supposed that Java or Argentina will have to borrow from the protectionist country *as well as* from other countries. Although, however, there can be dealings of this character between the foreign countries *inter se*, it would be ultimately the country, levying import duties, and that alone, which will be called upon to lend. The rest of the world will remain indebted to it only *to the extent* of its favourable balance of trade (*minus* gold imports, if any); and this extent, be it remembered, will be inconsiderable (nay, almost insignificant) as compared to the total transactions of the world in these various series; so that the fears of the critics that there would almost be havoc in the rest of the world is unfounded. The truth of the matter is that the restriction of imports by a protectionist country will be generally spread over a number of countries and its incidence will fall lightly on all and heavily on none. The inability plea, therefore, falls to the ground,

Nation in March and April 1931. Keynes has returned to the attack in his *General Theory*. In India, my cousin probably happens to be the first to apply the outcome of the controversy to the Indian problem; see, *op. cit.*, pp. 1-48. For reasons of space, I cannot go into every aspect of this question, but undoubtedly the possibility of a reduction of imports helping our trade balance to be on the right side of things (in the present situation of serious disequilibrium) and reducing unemployment, cannot be lightly brushed aside. See *infra*.

because the protectionist country itself will be in a position to lend (*i.e.*, in the case of a creditor country, expand its net foreign investments, and in that of a debtor country, reduce its foreign debts); and secondly, because the foreign countries taken as a whole will be in a position to borrow marginally from the former (to the extent of the favourable balance of the protectionist country) without feeling any grievous burden. Those who complain that foreigners might be impoverished forget that the adverse balance of trade of our country is already favourable to the rest of the world, and it is only this disadvantage that is to be corrected. And even if it is "favourable" to us, in the game of international trade, such give-and-take is a daily affair; but for the minor consequences of this no nation can willingly limit its own action in a spirit of suicidal charity, and agree to involve itself in a vicious spiral of indebtedness and unemployment.

III

Let us now turn to the question of India's fiscal policy, which has been already anticipated in the foregoing discussion at several points. Firstly, then, it is beyond doubt true that India fulfils all the requirements of what Pigou calls a backward "agricultural country wishful to develop manufactures." It is, I hope, by now a commonplace in economics how the various important elements of productive power, such as industrial technique, organised systems of transport, banking and communications, trade connections and goodwill, an efficient labour supply and a group of enterprising and far-seeing captains of industry, arise and are augmented in a cumulative manner under the aegis of a well-planned system of protection. The prosperity of Germany, the United States and several continental countries has been attributed even by leading free-trade authorities like Taussig and others to protectionist policies. Latest cases are Japan, Australia Canada and South Africa. Those who deny the efficacy of protectionism would do well to peruse the industrial histories of these nations. The Indian Fiscal Commission has gone through this question with great power and far-seeing vision and decided that, for the sale of a rapid industrialisation, the country should take a step forward in the direction of protection. It was unfortunate that they recommended merely Discriminating Protection, *i.e.*, for infant

industries, which according to Pigou and free-trade authorities is more appropriate to developed industrial communities possessing such "infants," than to agricultural countries with potentialities of an all-round industrial development. There is no doubt, at any rate at this date, that Discriminating Protection was merely a compromise formula devised by the majority to soothe external interests and the adjective "discriminating" merely gave a semblance of respectability and level-headedness to the formula. And yet it must be remembered that the actual details of the formula restricted its scope to a far greater extent than necessary, while the administrative machinery set up for its execution by the Government came to be such that hurdles after hurdles were placed in the way of the applicant industries. Even a general system of protection can be "discriminating" without excluding all but infant industries from its scope. Apart from established infant industries, new or "embryo" industries would also have to be considered for selective protection, as was done in other protectionist countries, while a basic level of protection would have to be maintained to create that atmosphere of confidence and stability which is essential to a programme of industrial development in a backward country possessing the necessary potentialities. At present the Tariff Board has to work within the straitjacket of the triple formula and exercise almost a valetudinarian caution in the prescription of its fiscal recipes. I do not think that this type of nibbling would help in the tremendous problem of industrialising a sub-continent like India.

The growth of population during recent years has been alarmingly rapid and the pressure on land is increasing day by day. Not only this but the fertility of the soil is rapidly dwindling, so that the fertility-acreage quota per head of population has also been in recent years falling very fast. The optimists have contented themselves with figures showing that *per capita* real production has increased. Such and other people, who (e.g.) look at superficial things like budget surpluses of Government, its credit abroad etc., without pausing to think how these have been brought about, are living in a dreamland of hallucinating prosperity. But actually the situation in the country for those who have eyes to see is daily getting from bad to worse; unemployment is rapidly increasing, while poverty, destitution and indebtedness are stalking through the land. Throughout this period, the silent sufferer is the agriculturist whose responsibilities are growing out of all proportions to his capacities to bear the burden of feeding the country.

The following table shows the gravity of the situation:

	1911	1921	1931	1936	1941
Total Population in millions ..	315	319	352	377*	400*
Working Population in millions ..	154	146	119	..	..
Employed in industries ..	15	16	17	..	..

(*Estimated).

The "industrial" employment of the Census figures has to be discounted in so far as nearly 7 millions are engaged in the plantation industries, while the large-scale industrial establishments provide employment at present only for between 1.5 to 2 millions of workers. From 1921 to 1941, i.e., within a period of twenty years as the figures above show the population will have grown by nearly 80 millions; if the increase of employable persons is taken to be about 30 millions, it is hardly probable that more than 2 millions will have been absorbed in the sugar, match-making, and cement industries apart from the old-established industries during these years. Thus it will be found that there is a great and growing maladjustment of the labour supply of the country—a maladjustment which cannot be corrected until suitable industrial avenues are provided. What have our friends, the critics of protection got to say about this? Here are the samples: "Even on the most extravagant and optimistic (*sic*) supposition that there could be a doubling of industrial production during the next ten years, the additional industrial employment created thereby would absorb only 1.6 per cent of the agricultural workers. It is, therefore clear that it would be a vain hope that a policy of industrial protection would effect any appreciable improvement . . ."¹⁸ Statistics show that even if these (!) industries develop to the farthest limit of expansion, they will not be able to absorb more than an insignificant proportion of our total population. Industrialisation by protection is therefore, a chimerical proposition."¹⁹ The United States and Germany had according to another writer, "a much more equitable distribution of the population between agriculture and industry than obtains in India," and as "these proportions are relevant (?) in balancing

¹⁸ Dey, *op. cit.*, p. 90.

¹⁹ B. N. Adarkar, *op. cit.*, pp. 62-3,
F, 20

the gain against the loss" of protection, "the actual volume of the sacrifice that India will have to make will be infinitely greater than that of these countries."²⁰

It is fine logic, indeed, to base such conclusions as these, regarding the failure of protection on figures of a tardy industrial development, when the obvious conclusion should have been that the tardy development of industries itself was due to the superficial aid given by the half-hearted, grudging concessions of a so-called "discriminating" protection! And in any case, to base conclusions as to possibilities of employment on the actualities of today is not only wrong logic but bad economics. The panaceas proposed by the critics themselves are rationalisation, internal planning, social and moral uplift, education, rural reconstruction, development of other departments of economic life such as agriculture, mining, transport, banking etc. All this is well said, but the questions are (i) how rationalisation would hasten industrial development in this country, seeing that it can affect only the *existing* industries, (ii) secondly, whether such random shots at the "bull's eye" of progress as social uplift etc., would solve the crucial problem of population pressure and a low standard of life, (There is no objection, however, against these innocent, philanthropic items of social programme *per se*.) (iii) thirdly, whether industrialisation can necessarily only take place at the expense of agriculture, (iv) fourthly, whether mining, transport and banking can develop at all without a rapid programme of industrialisation. There is no case on record of an agricultural country having successfully industrialised itself and raised its standards by merely tinkering with haphazard methods of social welfare which are clearly of a long-period character: these, indeed, have their place in the economic policy of a country, but they are more consumptional than productional in their aspect and they are slow business at best.

As regards the general question whether India should be an *Agrarstaat* or *Industriestaat*, I think at this distance of time there can hardly be any dispute that what we should aim at is a diversification of our economic life. This, I believe, has been brought home to us particularly by the recent Depression which caused a far greater proportionate fall in agricultural prices than in industrial prices, making our real ratio of trade seriously adverse: owing to the slight recovery that is taking place in the world markets, the two sets of prices (agricultural and industrial)

²⁰ Pillai, *Economic Conditions in India*, p. 324, supported also by Dr. Gilbert Slater in the Introductory Note,

are again converging towards a new parity thus slightly improving our real ratio, but this much can be taken for granted that owing to the tractor and the steam engine agriculture has been glutted and the real ratio might well worsen again. Moreover, a primary occupation like agriculture can never hold out any hope of a high standard of life for our growing millions with a diminishing fertility-acreage ratio; primary occupations are always associated with a low standard of life. Agriculture means backwardness and backwardness, again, is a cumulative process. Moreover, scientific progress is closely associated with industries and both these again with political supremacy; if "defence is more important than opulence," modernisation on industrial lines is essential; it is essential if we are to have a place in the sun, especially in view of the new military responsibilities which are bound to devolve upon India in the Far East in the near future. Moreover, there is no doubt whatever that industrialisation would mobilise our shy capital which has been locked up for centuries in the form of gold for want of a better investment, though the claim that industrialisation itself would cause an immediate growth in our capital resources may be regarded as erring on the side of optimism. It is hopeless to expect that this gold can be suitably invested in land, or in social uplift.

The Tariff Board has been handicapped in its operation in several ways: its constitution, its functions, its personnel have left much to be desired; its deliberations have been hindered by the strict implications of the triple formula; its recommendations have not infrequently been rejected; its reports have been on occasions shelved indefinitely; the Commerce Department has nipped many an industry in the bud by putting obstacles in the way of applicant industries and refusing to place their cases before the Board, thus prejudging and prejudicially judging such issues as should have been the proper subjects for the Board itself to advise upon. In spite of all these impediments, the Tariff Board has so far discharged its responsibilities with vision, sagacity and impartiality. If there is no humming prosperity in the country with thriving industries everywhere, the fault at any rate is not theirs. What little protection has been available after the combing process of the present machinery has more than justified itself. It may at once be admitted that the system as it has developed has contracted some defects: but what system is without defects? Moreover, in this case, they are undoubtedly the defects of the merits of Protection. Critics have exaggerated the defects and shut their eyes to the progress achieved by way

of direct and indirect employment and the growth of the national income as a whole, thus willingly losing their perspective.

The first grouse of the critics is that discriminating protection has led to *regressive taxation*.²¹ Now I am not one of those who think that the system of Indian public finance leaves nothing to be desired; on the contrary a majority of Indian economists have rightly condemned it both for its inequities of burdens and its wastefulness of expenditures. There are, however, one or two points which we have to bear in mind in this connection. In the first place, it must be remembered that inequality of distribution in this country is not so great as in the West, so that a scheme of taxes (in which, say, the custom duties are 53 per cent of the total tax burden) is bound to be less regressive in its effects in India than in the western countries. Secondly, without prejudice to a general conclusion that reform can make the system somewhat less regressive than it actually is, it must be pointed out that as the majority of our countrymen are poor, to run any government whatever on modern lines, the tax burden will have to fall mostly upon the poor. Thirdly, a system of finance may be regressive as to taxation, but if it is progressive as to expenditure, the evil effects of regression will be sufficiently compensated for in the other direction. This is the first relativity aspect. Fourthly, regression or progression is a relative idea, if owing to customs duties, the tax system has become regressive, there are two ways in which this can be corrected: *either* to reduce customs taxation, thus relieving the poor, *or* to raise more revenue from taxes which fall specifically upon the rich. If protective duties can be justified on broader grounds, such as that the national income would increase,²² then clearly the former course is not the wiser, for if national income as a whole grows, the later distributional aspects can be taken care of by the Government: in brief, let the "heap" (*pace* Stamp) of national resources first be greater; its sharing can well be our next preoccupation. On the other hand, any student of Indian public finance can tell us that there is a vast scope for taxation of the upper strata of incomes, so as to make the bias of the tax system more progressive or less regressive than it is today. Reform of income-taxation, taxation of the incomes from land, taxation of inheritance, succession and legacies,

²¹ H. L. Dey, *op. cit.*, chapter 1.

²² And it is this proposition that the critics will have to contest, rather than give a dog a bad name and hang him.

taxation of property (both movable and immovable) of joint and separate families, and of transfer of property,—these and several other sources will have to be tapped. Though the difficulties, principally legal and administrative, are great here, I believe our authorities on taxation have generally agreed that the country is insufficiently taxed in these directions as well as on the whole. We shall be reaching the *optimum* size of public finance in India by increasing our public activities rather than by curtailing them: if this is so, there is no case for reducing customs duties but only for exploring the other avenues of taxing the rich. Finally, and this is a theoretical point, it is not correct to suppose that regression reduces economic welfare under all circumstances whatever. It might do so, if the actual *absolute* taxation paid in by the poor individual is greater in amount than what the rich individual pays; for the rest, the theory of public finance does not make any deliverance on the question. Although it may well be granted that a greater element of progression will make the maximum number of us happier than we are, there is no proof that in India the poor actually pay in taxation less than the rich or that the rich benefit actually by expenditure more than the poor and hence the conclusion is that there still takes place a transference of wealth from the rich to the poor in this country which may be insufficient but which is certainly not negative in character.

The next grouse of the critics is that protective duties make the rich richer and the poor poorer, thus aggravating the existing inequality of distribution. Their argument is that the duties cause the prices of the goods protected to rise thus injuring the consumers who are mostly poor, while they benefit “the favoured groups of entrepreneurs, investors and wage-earners” connected with the industries concerned. Now it must be admitted that it is one of the incidents of industrialisation that it creates a rich entrepreneur class: this is not peculiar to protection, it is inherent in industrialisation itself. On the other hand, the “burden of the consumer” question is not such a simple issue. In the first place, it is not clear that the poorer sections of the society do actually bear a large part of the burden of protection in India: my personal view is that it falls to a greater extent on the *middle* classes who are the principal consumers of imported and protected goods. Apart from this, however, in order to assess the actual injury caused, we have to take into consideration not only the rise in prices (which may indeed be temporary, the period depending upon the measure of protection and the development of the industry), but addition to the incomes of the poor caused by

(i) increased *primary* employment in the industry itself, and (ii) the reactions of this on *secondary* employment in several other industries and agriculture,²³ which relieve the pressure on the soil. To the extent, (or even more than that), that prices rise as a whole, total consumer purchasing power increases, so that the harm done to *total* consumption, which is definitely greater than before, is illusory. What is more, by employing the unemployed and thus bringing about some favourable redistribution, the sum of human happiness is actually increased. Any contrary conclusion is due to the common confusion between the term "producers" and "entrepreneurs"; in truth by producers we mean here all those, workers and others, who are engaged in industries.

The next contention of the critics is that when protection begins to become effective, the revenue of the Government begins to fall off.²⁴ Of all the arguments against discriminating protection, this perhaps is the lamest and most slipshod. I do not produce statistics in this connection to disprove what is indeed a fact that during the last few years the revenue from protective duties has fallen. It is, of course, due very largely to a general fall of imports caused by the Depression and the reduced purchasing power of the people. But the general proposition, that in so far as protection is effective revenue must fall off, must indeed be granted. But the question that arises is, Why should the Government look for revenue in these shaky quarters? And even if they do, why should they do not be prepared to adjust their taxation system to the changing fabric of revenue? And is a revenue loss to be regarded as a *national* loss, in strict theory? At the most, a revenue loss might cause administrative inconvenience, necessitating the imposition of new taxation or the scaling up of the old. Theoretically, it is not even improbable that reduction of duties on some of the "adult" protected industries would be augmenting the revenue. This can be tried if necessary, but there is no ground whatever for the claim that "India's *tariff* policy must primarily be directed by revenue considerations."²⁵ I have referred to the question of revenue

²³ The problem is essentially of the same nature as that of the "Multipliers" of Messrs Keynes and Khan. See Keynes' *General Theory*, chapter 10 etc. Also, P. J. Thomas, "A Plan for Economic Recovery," in the Conference Number of the *Indian Journal of Economics*, April 1935.

²⁴ B. N. Adarkar, *op. cit.*, pp. 65—67 and 74—87; Vera Ansley, *Economic Development of India*, p. 389 and views of Finance Members quoted by B. N. Adarkar.

²⁵ Vera Ansley, *loc. cit.* Italics mine.

duties below once more; here I would only confine myself to saying (i) that in so far as protection leads to establishment of new industries, it becomes possible to gather more revenue by way of income-tax and excise—both of which can substantially make up for the so-called “loss,” and (ii) that if the national dividend as a whole increases, as it must in a country in which large masses of human and material resources are lying unemployed, these superficial considerations have no bearing on the questions of fiscal policy.

The next important grouse of the critics of the Indian protectionism is that it has created and will further create “vested interests” in the country.²⁶ Now, vested interests and trusts and cartels are incidents of industrial progress and of changes in organisation. The American, English and German attitudes towards trustification and cartellisation have not been all in the same direction²⁷; thus those who inveigh against these things will have first to get their notions fully clarified as to the end towards which they would wish industrial organisation in this country to progress. They might usefully remember that we can in these, as in many other, matters draw upon the experience of western nations and shape our policies.²⁸ Vested interests are an excrescence of industrialisation under the capitalist system; you cannot abolish them by abolishing protection; and in so far as protection might have helped industrialisation anywhere, they are the defect of the merit of protection. It is impossible for us to have industries without vested interests; the more important practical issue is, whether we have any means at our disposal to neutralise the harmful influence exercised by them. In modern democracies as well as autocracies, balance is always provided for the overmastering influence of vested interests: in India, as it appears to me, we have a number of mutually neutralising elements which either have been or will be quite adequate to ensure against the domination of Big Business. In the first place, owing to the broad-bottomed franchise of the new Constitution we shall have the representatives of the non-industrialist, consumer

²⁶ References to individual writers are unnecessary; free-trade literature is replete with discussions on this point; Indian writers have merely dotted the i's and crossed the t's of Taussig and others.

²⁷ Cf. H. Levy, *The New Industrial System*; Marquand, *Dynamics of Combination*; L. Urwick, *Rationalisation*; Meakin, *The New Industrial Revolution*; and other works by Florence, Robinson, and others.

²⁸ The U. S. A., the classical home of vested interests, has also been the land of the most relentless Anti-Trust Laws.

population in the legislatures in large numbers; secondly, foreign interests will be well represented by the "special responsibilities" of the Viceroy and his various "discretions"; thirdly, the general surveillance of a foreign Government interested more in agriculture than in industry is also an effective safeguard in this connection; and fourthly, inter-provincial jealousies, which are steadily coming to the forefront (Witness, *e.g.*, the ratio controversy, the cotton textiles protection, the Nimeyer Scheme of federal finance etc.) can be depended upon for certain checks; and lastly, the active presence of an impartial economic judiciary, like the Tariff Board, duly fortified further if necessary as regards constitution and functions, can also be a valuable insurance. The Fiscal Commission had already anticipated this objection and held that the danger of political corruption was not so great in India as in some other countries more or less on these grounds: their hopes will not be belied if the greatest possible publicity is given to the findings of the Tariff Board and if this body is turned into a permanent investigating Commission on the lines of the American Tariff Commission or the Federal Trade Commission. The problem of vested interests is thus neither new nor newly discovered. To deal effectively with that problem, moreover, is not beyond our capacities either at present or in the future; "the power to tax", Chief Justice Marshall used to say, "involves the power to destroy" and, I think, it is this weapon of taxation which among others can be wielded most effectively.

IV

To conclude, in the first place, the theoretical foundations of *Laissez-faire* have been found to be inadequate because the assumptions on which they are based, such as that there is full employment, that "wage-rates tend to adjust themselves to demand and supply conditions in such wise that no involuntary unemployment, other than such as is due to industrial fluctuations, can exist,"²⁹ that cosmopolitan good is the good *par excellence*, that changes in distribution would make no material alteration to international values,—these assumptions cannot be granted. Even the international division of labour, which is the mainstay of Free Trade, is not above reproach, because it is capable of doing permanent harm to a backward country in respect of its production and productive capacity and because what tends to be

²⁹ Pigou, *op. cit.*, p. 218,

is not necessarily for the best. So far as India is concerned, her case falls within the category of backward agricultural countries "wishful to develop manufactures," and possessing cumulative potentialities of natural and human resources. Thus Discriminating Protection of a piecemeal variety hardly meets the requirements of her industries, which, if we are at all to be honest about it, are undoubtedly shouting for a rapid growth. What is needed is a comprehensive visualisation of the industrial problem as a whole and we must also remember that industrialisation is a close interdependence between industries, old and new. The burden on the consumer and on the agriculturist are merely the arguments of crocodiles: there is no loss caused to these interests for which they will not be more than compensated in other ways, owing to increase of employment and owing to internal demand for food-stuffs and raw materials having increased. Moreover, under present circumstances, at any rate, owing to the steep fall of prices of all kinds, the consumers (*i.e.* people still deriving incomes through employment or otherwise—not the unemployed) have gained all along the line. For these reasons, I have no sympathy for the so-called consumers whose mythical interests seem to dominate our fortunes in fiscal policy. It should be remembered that every fiscal measure is bound to harm some people and benefit others, or harm the same people in some ways and benefit them in others: the function of economists is to deal with each case justly weighing the pros and cons and considering the *tout ensemble* of results and not merely to harp upon one set of such results. Owing to a lack of industrial and commercial development in India, there is in evidence today a growing middle-class unemployment, which has been caused as much by an increasing maladjustment of the labour supply as by a growing stream of population. At a time when the rest of the world's countries have safeguarded their production structures and markets by restrictive measures against a plethora of dumped goods, what has the Government of India done? Our Government is about the only one to have achieved the singular distinction of having done *nothing* in a world depression which has hit agricultural countries the hardest. Our Government is obviously out to maintain *Laissez-faire* in all its pristine purity; it would even go to the length of sacrificing Indian currency and fiscal policy on the altar of a false internationalism, lending volunteer services to its cause by refusing to enter into "a race of competitive depreciation" and to complicate (*sic*) international trade by imposing artificial "trade barriers." For this yeoman service to the cause of internationalism, the Government of

India verily deserves the Nobel Peace Prize for all years to come.³⁰

³⁰ I should add a few words here regarding certain side issues like (a) Revenue Duties, (b) the Ottawa Agreement and other bilateral pacts, and (c) the Sugar protection.

As regards revenue duties, these should now be scrapped and replaced by a wide variety of protective duties of a more scientific kind, except in so far as luxuries are the objects of taxation. The revenue duties grant a haphazard, irregular protection, which, again, is unnecessarily injurious to industries in some cases.

As regards the Ottawa Agreement, I can hardly find space in this paper except to remark that the whole controversy as to the success or failure of the experiment has been characterised by an obstinate refusal to admit the impossibility of establishing anything statistically, especially as the whole background of our foreign trade has altered, owing to currency changes and realignments, bilateral and other pacts in the rest of the world, and that upward swing of business since 1931 in the British Empire and since 1933 elsewhere. Seeing that our foreign trade is a small proportion of our total trade, bilateral pacts can do us neither much harm nor much good. What must be safeguarded, however, is our main object of industrialisation and our main policy of protectionism. In so far as, bilateralism is against these, we should have no part or lot in it.

As regards the Sugar protection, I can only state my conclusions in brief : There is, indeed a glut in the production of Indian sugar; this has been assisted by protection. But the industry has provided employment to lakhs of people directly and indirectly, and crores have been invested; if the industry is scrapped, the agricultural investor must suffer; moreover, the problems of that industry deserve to be approached not in a spirit of animadversion, but in one of paternal care. The uneconomical unit of production will have to be eliminated; the industrialists must be brought together and made to amalgamate for rationalisation and reduction of costs; sugar research must be extended; the use of molasses for agricultural purposes and for the alcoholic industries must be popularised. This is the only right way to bring things back to a normal and healthy equilibrium. In my view, moreover, the present surcharge may be removed and the duty restored to the original level of Rs. 7-4-0 per cwt., in view of the fact that the difference between the ex-duty price of Java sugar and the ex-duty (excise) price of Indian sugar works out at that amount.

PROTECTION TO SUGAR

BY

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Growth of the industry.

Manufacture of sugar in modern factories began in India in the closing years of the last century. But the industry made little progress for more than three decades after its start. As a matter of fact, up to the year 1924-25, the amount of sugar produced direct from cane in modern factories in this country was well below 40 thousand tons a year. Even as late as 1931-32, the total number of factories in India was 32, producing an aggregate quantity of 158 thousand tons of sugar in a year. But after 1932 there is a very remarkable growth of the industry. The following table shows the progress of the modern sugar industry in this country since 1931-32¹:—

Year.			No. of factories.	Sugar produced. (In thousand tons.)
1931-2	..	..	32	158
1932-3	..	..	57	290
1933-4	..	..	112	453
1934-5	..	..	130	578
1935-6	..	..	139	684
1936-7	..	..	156	760

Course of the tariff policy.

The progress of the sugar industry in India is closely connected with the tariff policy of the Government. It is therefore necessary to study the course of the tariff policy in regard to sugar. From 1894-95 to 1915-16, there was a general import duty of 5 per cent on sugar as on other important articles of import. The necessity for larger revenue created by the war led to a general rise in the tariff rates, and the import duty on sugar was raised

¹ Gandhi, *Indian Sugar Industry*, 1936 Annual.

to 10 per cent in 1916. The duty was raised to 15 per cent in 1921, and then again to 25 per cent in the following year. In 1925 the import duty on sugar was further raised in the form of a specific duty of Rs. 4.8 per cwt. This duty was in force for nearly five years. In 1930 the duty on sugar was raised to Rs. 6 per cwt. In March 1931 the sugar duty was further enhanced to Rs. 7.4 per cwt. In September 1931, along with the imposition of a general surcharge, the import duty on sugar was increased by 25 per cent, so that the total import duty on this commodity was Rs. 9.1-0 per cwt. In 1932 the Sugar Industry Act was passed. This act gives protection to the sugar industry for a period of nearly 15 years ending with 31st March, 1946. A protective duty of Rs. 7.4 per cwt. was imposed on all kinds of sugar imported into this country.² This duty is to remain in force until 31st March, 1938. Before the expiry of this date an enquiry is to be made to ascertain the extent of protection for the period after 1938.

As the revenue surcharge of 25 per cent was also continued, the total import duty on sugar was Rs. 9.1-0 per cwt. From 1st April, 1934, on account of the heavy decline in the revenue realised from sugar import duty, the Government imposed an excise duty of Rs. 1.5 per cwt. on sugar manufactured in vacuum pan factories in India. The imposition of the excise duty partly neutralised the additional amount of protection afforded by the revenue surcharge. Thus the actual extent of protection enjoyed by the sugar industry from September 1931 to March 1934 was Rs. 9.1 per cwt. On the basis of the average price of sugar ruling in this period, the duty works out at the *ad valorem* rate of nearly 170 per cent. From April 1934, the amount of protection has been Rs. 7.12 per cwt. At the present time the wholesale price of Java sugar is about Rs. 13.8 per cwt. Deducting the import duty, the price comes to about Rs. 4.7 per cwt. On this basis, the extent of present protection also is about 170 per cent *ad valorem*.

Influence of protection on the growth of the industry.

It will be clear from above that the sugar industry in this country has been enjoying a fairly high and increasing amount of protection from the revenue duties imposed since 1922. In spite of this, it made little progress before the passing of the

² This change was more or less formal because the import duty on sugar 8 D. S. and above was already Rs. 7—4 per cwt.

Sugar Industry Act of 1932. The reason for this tardy growth in this period appears to be that, although the revenue import duties were giving protection to the domestic producers, there was no feeling of security as regards the continuance of such protection. The rapid growth of the industry in this country is all the more remarkable because it has taken place in a period of severe economic depression. It demonstrates the efficacy of protection in fostering an infant industry, and seems to indicate that the expansion of a new industry depends not merely on the extent of protection but also on confidence as regards its continuance for some time.

The expansion of the sugar industry after the grant of protection should not however be taken as implying the ultimate success of the protectionist policy. The successful application of protection means that the industry to which it is given should eventually be able to face foreign competition on even terms. The most decisive test for the success of protection is the survival of the industry after the removal of the protective duties. Unfortunately this test cannot, as a rule, be applied in any country on account of the strong opposition of the industrialists concerned. In this respect the history of the tariff policy of the United States of America is instructive. In the absence of the possibility of this test, other criteria also may be applied. If the domestic price of the commodity is as low as the foreign price, or if the industry develop a regular export trade while competitive conditions prevail in the home market, protection may be said to have been successful.

So far as the Indian sugar industry is concerned, it is not yet possible to apply any of these tests. The protection is to continue for another period. On the other hand, the industry has been granted formal protection only for the last five years, and such a period is too short for the industry either to develop an export trade or to bring the domestic price down to the level of the foreign competitive price. So long as a protected industry is not able to supply the entire domestic market, there cannot be any substantial fall in the price of the domestic product. As yet that stage has not been actually reached by the Indian sugar industry, although it is very near. The estimated total production of sugar by modern factories, indigenous process, called *khandsari*, and by the refinement of gur in India is 849 thousand tons for 1935-6 and 915 thousand tons for 1936-7.³ The aggregate consumption has been estimated to be 900

³ Gandhi, *Indian Sugar Industry*, 1936 Annual.

thousand tons at the present time, so that the consumption is likely to be fully met by domestic production in the current year. As an indication of this, the import of sugar has fallen to insignificant amount in the present year. The total import of sugar into British India from foreign countries for the period January to September is only 30 thousand tons in 1936 as against 132 thousand tons in 1935, and 161 thousand tons in 1934.⁴ As the stage where domestic production is able to satisfy the entire domestic demand is being reached, there is taking place a fall in the price of Indian sugar. As compared with 1935, the present year shows a distinct fall in the price of sugar. The price of Indian factory made sugar, first crystal, in November 1936, was Rs. 6-8 to Rs. 8-8 as against Rs. 8-10 to Rs. 9-8 in Nov. 1935. There has also been a fall in the price of Java sugar in the period, but the fall in the price of the former is considerably greater than that in the latter.

The period of protection enjoyed by the industry is too short for the attainment of the stage of independence by it. It is therefore too early to judge the success or failure of the policy of protection. The industry has certainly made a rapid quantitative progress. This is what a protectionist policy is calculated to do in its early stage. Improvement in the methods of production comes as a rule when the industry has acquired some experience and when it feels the pressure of internal competition.

Progress in the methods of production.

As regards progress in the methods of production, it may be stated that it has broadly two aspects—one relating to the manufacturing processes, and the other to the production of sugar-cane. Most of the sugar factories in this country have been started during the last four years, so that it may be presumed that the plants and machinery are generally of the latest design. The size of the business unit in India is small compared with that in other countries. The average annual output per mill is about 5000 tons, as against 12500 tons in Java. The main reason for the comparatively small size of the business unit in this country is the scattered cultivation of cane and the difficulty of transport. With improvement in the means of transport, the size of the business unit is likely to increase. There is already a tendency on the part of many mills to increase their crushing capacity.

⁴ *Indian Trade Journal*, November 19, 1936.

The average recovery of sugar is about 9 per cent in India as against 12·3 per cent in Java.⁵ There is much scope for improvement in this respect. During the last four or five years there has not been any perceptible increase in the recovery of sugar from cane in this country. It should be realised that this low recovery is not so much the defect of the method of extraction as of the quality of cane and the condition of its supply. The sucrose content of cane is lower in India than in other countries for various reasons. The low recovery is also due to the fact that factories have to draw their supplies of cane often from a distance, and a part of the sucrose content is lost during the transport. With improvement in the means of transport, in the method of cultivation, and with the breeding of better varieties of cane, there is every possibility of an increase in the recovery of sugar in this country. In Bombay the recovery of sugar is on an average 10 per cent. This is explained by the fact that the quality of cane grown in that province is better than that in other parts of India.

Utilisation of by-products.

An important source of economy in the sugar industry is the proper utilisation of by-products. Broadly speaking, there are two by-products of this industry—molasses and bagasse. Of these, the former is of considerable economic importance and possibility. When the Tariff Board reported, the price of molasses was fairly high in India, and it was calculated by that board that sugar factories would be able to realise about Re. 1·8 per maund by the sale of this by-product. There has been a heavy fall in the price of molasses in the last few years, and at the present time sugar factories are not able to realise a price of even two annas per maund by selling it. It is highly desirable that research work should be organised by Government in co-operation with the mills for a better utilisation of this commodity on a commercial basis.

Agricultural aspect of the industry.

Improvement in the cultivation of cane is essential to the progress of the Indian sugar industry. The cost of cane is about half the cost of producing sugar. No substantial fall in the cost of sugar is possible without a fall in the cost of cane. Although the average yield of sugar-cane in India has increased from 12 to 15 tons per acre in the course of the

⁵ Gandhi. *Indian Sugar Industry*. 1936 Annual.

last five years, there is a vast scope for progress in this respect. The yield of sugar-cane in Java is more than 50 tons per acre on the average. An increase in the yield of cane in proportion to the area depends, in the first place, on the breeding of high-yielding varieties of cane, and in the second place, on an improvement in the methods of cultivation. At the sugar-cane research station at Coimbatore very promising results have been obtained, and several races of high-yielding cane have been successfully evolved. The recent increase in the yield of cane in this country is the result of the increasing cultivation of these improved varieties. If these varieties of cane are grown under a system of intensive cultivation with a proper application of manure and a satisfactory arrangement for water, there is bound to be a large increase in out-turn. That there is a great possibility of increase in the yield is proved by the fact that on an experimental plot in the Bombay Presidency 110 tons of cane per acre has been recently obtained.⁶

Control of the price of cane.

It is interesting to discuss the policy of controlling the price of cane adopted by Government. According to the provisions of the Sugar-cane Act, 1934, the Governments of Bihar and the United Provinces have fixed two sliding scales of minimum prices for cane depending on variations in the price of sugar. Of these two sets of prices, one is definitely higher and is applicable to the modern sugar factories, the other being applicable to open-pan factories.⁷

The object of fixing a minimum price of sugar-cane is evidently to ensure to the cultivators a good price for their cane. While the purpose of Government is certainly laudable, it must be said that the policy is open to a number of objections. In the first place, an artificially high price of sugar-cane will check the tendency of the cost of production of sugar towards a fall, and thereby retard the progress of the industry. In the second place, the policy of fixing a minimum price in the way mentioned above is not likely to raise the price of sugar-cane in general. The modern factories consume only about 12 per cent of the total production of sugar-cane. The fact that consumers

⁶ Adarkar, *The Indian Tariff Policy*, p. 125.

⁷ The minimum price of cane, when purchased by vacuum pan factories, varied from 4 as. 3 pies to 5 as. 9 pies in U. P. from 1934-35 to 1935-36. For open pan factories, the price varied from 2 as. 6 pies to 3 as. 6 pies in the same period. The prices fixed in Bihar in this period were slightly different.

of this 12 per cent are compelled by law to pay an artificially high price cannot raise the demand price for the remaining 88 per cent of the supply. The only direct gain to the cultivators is that for this 12 per cent which is consumed by the mills, they obtain a higher price than they would if there were no price control. Even supposing that such price control succeeds in raising the price of sugar-cane in general, it would be impossible to maintain the price at this high level without restricting the cultivation of cane. A rise in price under unrestricted production is bound to increase the supply, and so the price will again fall. It should be noted that the control of the price of sugar-cane serves to give some protection to the *gur* industry against the competition of the domestic sugar industry. The excise duty on sugar also tends to produce a similar effect. Although *gur* has some special demands of its own, over a large part of the field of consumption, sugar may be regarded as a serious rival.

Burden on the consumer.

It is interesting to discuss the burden of the protective duties on consumers. There seems to be a great diversity of opinion in this respect. Mr. Gandhi in his *Indian Sugar Industry*⁸ expresses the opinion that since the price of domestic sugar at the present time is less than the price of imported sugar in the pre-protection period, the imposition of protective duties has not put any burden on the consumer. Mr. Adarkar, on the other hand, calculates the burden on the basis of the difference between the present price of domestic sugar and the ex-duty price of imported Java sugar⁹. The correct basis for estimating this burden appears to be the difference between the present price of domestic sugar, when an allowance for the excise duty has been made, and the price of imported sugar which would prevail if protection had not been granted. Mr. Gandhi's calculation is defective for the reason that the price of imported sugar in the absence of protection would certainly be lower than that of domestic sugar in the period of protection. There is thus no doubt that protection has put a burden on the consumer.

On the other hand, Mr. Adarkar's calculation is open to the objection that the price at which Java sugar would be available in the absence of protection would in all probability be greater than the present ex-duty price. The rapid fall in the

⁸ 1936 Annual.

⁹ *Indian Tariff Policy*, p. 79.

demand for Java sugar after the grant of protection dislocated the sugar industry in that country, and she was forced to cut her prices in order to dispose of this overstock. That Java has been exporting sugar at unremunerative prices recently is indicated by the heavy fall in her production of sugar. Whereas the world production of sugar fell from 161·7 million quintals in 1931-2 to 155·9 in 1935-6, the Java production fell from 25·6 million quintals to 4·9 in the period.¹⁰ Mr. Adarkar's method of calculation is also open to the objection that, in taking the price of Indian sugar, he does not make any allowance for the excise duty. The actual burden on the consumer is therefore considerably less than what is estimated by him.

Protection in the future.

In view of the coming revision of the sugar tariff, the question naturally arises as to the extent of protection the industry should enjoy after 1938. We have seen that protection has brought about a rapid growth of the industry. It may be stated that in the absence of protection the industry would have been killed by foreign competition during the severe economic depression. But, as it has been stated before, this quantitative progress of the industry should not be regarded as the ultimate success of young industries protection. That depends on the ability of the industry to face foreign competition on terms of equality. The industry received formal protection in 1932, and it is too early to judge the success or failure of the protectionist policy. The attainment of the stage of independence generally takes a fairly long time and is mainly brought about by the pressure of internal competition. During this period, the continuance of protection is essential.

The extent of protection to the sugar industry is at the present time Rs. 7-12 per cwt. The fact that the price of Indian sugar is lower than the price of Java sugar by a larger margin than is justified by the difference in quality indicates that the amount of protection is greater than what is really needed by the industry. There is reason to believe that with further increase in domestic production, the downward trend in the price of Indian sugar will continue. The present level of protective duties including the surcharge will therefore be increasingly excessive. The industry has already attained a fairly large dimension, and what is needed now is an improvement in efficiency rather than an expansion in size. It is important to bear in mind

¹⁰ *Statistical year Book of the League of Nations*, 1935-36,

that an unnecessarily high level of protection may bring about a condition of relative inefficiency. It is therefore desirable that the extent of protection should be somewhat reduced, so that while safeguarding the industry against unwholesome foreign competition, it provides a healthy stimulus for acquiring vigour and efficiency.

A NEW TARIFF POLICY FOR INDIA

BY

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Tariff policy in India was dictated, for quite a long time, by British politicians more in their interest than for the benefit of the Indians. Any duty—protective or revenue—could not be tolerated by the British exporters and had to be removed. The cotton duty controversy in the last seventies and eighties is too well known. A policy of free trade was advocated by the leading British economists because then it served well the needs of England. The same policy was advocated and adopted in India. Free trade, no doubt, is good but only when the following three conditions are satisfied: (i) If all countries of the world are in the same state of economic development and industrial progress. (ii) If other factors, e.g., depreciation of exchanges, prohibition of imports, state subsidies and freight rebates, do not disturb the free flow of international trade and (iii) If free trade policy is universally adopted.

The first condition refers to industrial efficiency of different countries and the question of the parity of productive values for different industries. For the latter we take an example. If the relative shares of capital and labour in manufacturing and agricultural industries are not proportionate to the labour energy demanded by the industries, no country would like to stick to such underpaying industries. This gives rise to the question of the evaluation of various types of services and makes actual comparison difficult. Various factors may have to be taken into account but the final comparison is inevitable not only for individuals or group of producers but from the national point of view as well. For the former, the cost of production of the two countries is to be calculated and compared.

The second condition, as already pointed out, relates to monetary policies which are capable of placing even an industrially inefficient country in a very advantageous position over others. The secret state help either in the form of money subsidy or in the shape of concessions may obtain a position for the industry which otherwise it may not be able to secure. This

may change the relative trading position of the countries in international markets.

The third condition means equal and same opportunities for all.

At present, none of the three conditions is found to exist and hence free trade policy has no scope. As a matter of fact no important country today is following the policy of free trade and even England which was primarily responsible for the movement has taken shelter under a protectionist policy.

In India the authorities are still thinking of a free trade policy and are as reluctant in granting protection to industries as they had been in the past. The tariff policy in this country can be described as a policy of general free trade with occasional protection against foreign imports and a preference for the United Kingdom and the empire goods over non-empire goods. The policy of free trade was followed upto the great war of 1914. The war, when Indian goods were badly needed in the near east, opened the eyes of the government to the need for the development of the Indian industries. It was at this time that in India a political agitation which included a programme for the development and patronage of Indian industries coupled with the boycott of foreign goods was actively pursued. Due to this demand for the protection of Indian industries and the sad experience of a short supply of goods during the war, the government appointed a fiscal commission to report on the tariff policy in India. After the recommendations of the fiscal commission, the government of India ultimately adopted a policy of Discriminating Protection. This policy of protection though accepted was not acted upon and some industries which could satisfy the conditions laid down by the fiscal commission and which were even declared fit for protection by the tariff boards were not accorded protection. The paper and glass industries illustrate the point. In other instances the protection granted was not to the extent as recommended by the board.

During the last decade, conditions have changed. Old theories of free trade have yielded place to new theories of protectionism and economic self sufficiency. Monetary policies have been revised and high tariff walls have been raised by different countries, not excluding even England, to protect the home industries. The first condition precedent to the grant of protection to industries in India as laid down by the fiscal commission has been ignored by other countries and new industries which enjoy no natural advantages have been started, protected and developed. It is, therefore, high time that India should give

up the conservative policy of caution and moving behind the times. If she has to live like a living force in the community of nations she must develop her home industries and share in increasing proportions the international trade of the world. For long India has been the producer of raw materials and the importer of finished products but the time has now come when she should not remain content with her poverty and should develop her manufacturing industries.

The abundance of cheap raw materials, supply of skilled labour and the availability of big and secure markets is not essential for granting protection to the industries. England and Japan grow not a single bale of raw cotton yet in these very countries cotton textile industry is by far the most important manufacturing industry not only to meet the home consumption but for export and international trade. The dye industry in England is another illustration. The United Kingdom enjoys no advantage in this industry. It was a new industry started during the war which thrived only because it was protected and given a fair chance to develop itself. The jute industry at Dundee furnishes another case of a manufacturing industry being developed without the production of raw materials at home. The iron and steel industry of Japan depends exclusively on her imports of pig iron from India and Russia. Germany imports raw materials in exchange for her manufactured goods. The shortage of raw materials is, therefore, no more a bar to the development of existing or even new industries. The new scheme of Japan to start an industry for the extraction of crude oil and gasolene provides an illustration of the development of new industry without natural advantages.

Skilled labour can be trained within a very short time. This has been done even in this country in the case of iron and steel industry at Tatanagar. If for the future prosperity of the country, foreign labour is imported for a short period and gradually replaced by newly trained Indian labour then the country, as such, stand to gain in the long run.

With adequate protection Indian market will always be secure for home products.

In view of what has been said above, the first condition of discriminating protection should now be relaxed in favour of a bold policy of protection. With the increasing pressure of population on the soil and increasing unemployment among the agricultural masses, the industrial labour and the educated and semi-educated middle classes, it is incumbent upon the Government of India to find new avenues of employment. For this the

existing industries will have to be developed and new ones started under the shelter of protective duties, as long as they cannot stand on their own legs. The sugar industry has provided employment to educated middle classes, industrial labour and the agricultural masses. The cane supply could not cope with the increased demand for cane by the new mills. A planned economy which provides sufficient work, to the unemployed numbers in village, small scale and organised industries is the immediate need of the country and in view of the policy of economic nationalism taking deep roots in other countries India has no alternative but to adopt the same policy and to give up internationalism, empire partnership and free trade.

A review of the foreign trade of India shows that about 50 per cent of the imports, valued at 67 crores in 1934-35, can be immediately replaced if the industries are adequately protected.¹ Other industries like oil pressing and the manufacture of its by-products, leather, glass, paper are suffering only for want of protection.

There are three important objections generally raised against a policy of protection. The first is the upsetting of the balance of India's foreign trade. Less imports would mean less exports and hence the present low favourable balance of trade may shrink still further and India may find it difficult to repay her other annual foreign obligations. As a matter of national policy exports of raw materials like oil seeds and hides and skins should be stopped. Jute and such other commodities in which India enjoys a monopoly are not likely to suffer much. Some of the raw materials may find a market within the country to be utilised by the new industries and lastly increased imports of machinery for new industries may more than offset any such apprehended fall in the export of raw materials. During the four years of protection to the sugar industry in India (1931-32 to 1934-35) sugar mill machinery worth 62·5 crores was imported giving an average of 15·6 crores a year compared to 0·14 crores in 1930-31. The import of spare parts of sugar machinery will now become a regular feature of the import trade. As against this the fall in the import of sugar and molasses during these years was from 10·96 crores in 1930-31 to an average of 3·8 crores between 1930—32 and 1934-35. The total imports, as a result of protection to sugar industry, have increased by an average of 8·426

¹ The list of industries which can be immediately started was given by the author in his article on "*Indian Unemployment and its remedy*" in the *Commercial Gazette* dated November 16, 23 and 30, 1936.

crores during these four years. If other industries are similarly protected, our need for export of raw materials will, on the one hand, be diminished due to increased consumption within the country and, on the other hand, we shall have increased our margin between the imports and the exports, which will help other countries in importing more of our goods. This policy will help the agriculturists by an increased demand for raw materials and the industrialists by secure home markets. The cry of the balance of trade being upset is, therefore, unfounded.

The second objection is that the mass of consumers will suffer for the sake of a few producers and as such India should not impose this burden on her poor masses. This question can be studied in two parts (1) that the cost of living will be increased and (2) that one class stands to gain at the cost of another.

The burden of the high cost of living depends on the relation of price indices to income indices. If with a rise in the cost of living income simultaneously increases in the same proportion then there is no additional burden on the consumer. If protection, on the one hand, means higher internal prices it also brings with it more employment within the country, and consequently additional income. One now has to choose between slightly low prices and no employment and a better employment with slightly high prices for a short period. It may be said that this extra income may not go to the consumers of the commodities and may be enjoyed by another section. It is erroneous to take such a view. Producers and consumers cannot be separated. The same man is a consumer when he makes the purchases for consumption and a producer when he goes to a factory to produce the same commodity. These things move in a circle and when one section in a community prospers its prosperity is shared by all other sections directly or indirectly through the complicated process of exchange. In this connection it may be remembered that when an industry is protected it is, no doubt, safe against foreign competition but the internal competition becomes more keen and brings down the prices. The tariff board on sugar industry calculated that after fifteen years of protection prices of Indian sugar will be sufficiently low to compete with general world prices. But in actual practice the anticipated level of prices was touched within four years instead of fifteen due to acute internal competition. Even assuming that the capitalists do gain, inspite of all said before, the profit can be very well socialised by the government in numerous ways either by excise duties or through high income and super-tax rates. The government of India has, in the case of the Reserve Bank of India,

imposed good restrictions on high dividends being paid to the shareholders. Railway profits were controlled and the state took a share in the profits. Thus unequal distribution of additional income due to protection can be taken over by the state through well planned and judicious taxation. Moreover, in certain other industries and enterprises government has taken no action against private companies monopolising the utility services like the supply of electricity, telephones and tramways and exploiting the consumers to their own private advantage. This should therefore be no ground against a policy of protection.

The third objection is regarding the loss of customs revenue to the government. Certainly protection does entail a fall in customs revenue under that head but this shortage can be made good by other sources. An excise duty as in the case of sugar may make up the loss. The increase in income-tax and super-tax due to profits of the industry may add to the government revenues. After all, the general prosperity in the country must directly or indirectly add to the Government Revenues. The small income of the Government of India when compared to other countries is due not to smaller population but to the poverty and hence low taxable capacity of the Indians. Government should try to fight this poverty first and the revenues will be automatically increased. Even assuming that the loss is not made good by other sources the Government should not grudge it in view of the fact that it mitigates unemployment. Other Governments are spending a lot over unemployment relief schemes and doles and if the Government in this country has to suffer a small loss in providing work to the unemployed it is not much and should be cheerfully borne.

ESTIMATION OF THE NATIONAL INCOME OF INDIA

BY

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Estimates of the national income of India have been made at fairly frequent intervals during the last seventy years. Out of the earlier attempts, the non-official estimates were made with the desire to demonstrate conclusively the abject poverty of the population, and thus strengthen the case for a change in economic policy. The official estimates were, on the other hand, made with the object of refuting the implications of the non-official figures, though they hardly succeeded in doing it. Estimates up to 1911 are of this nature.¹ After 1911, estimates have been made by professional economists who presumably approached the problem with an open mind and were not interested in establishing a case for or against the economic administration of the country. But all these estimates suffer from serious defects—not only defects which arise from absence of necessary data or inaccuracy of the available statistics but also defects which are due to a misapprehension of the fundamental principles involved in making estimates of this kind. It is proposed in this paper to examine the defects from which the existing estimates suffer and to suggest the lines on which satisfactory estimates can be made under Indian conditions.

1. Existing Estimates of the National Income of India.

In Table I are given the more well known estimates of the national income of India converted into average income per head of population. Altogether nine estimates are given, starting with the estimate of Dadabhai Naroji for 1868 and ending with the figure for 1931 estimated by Mr. G. Findlay Shirras. Average income per head is given in the table for two reasons—firstly, the authors themselves refer more often to this figure

¹ See Table I below. Estimates by Baring and Barbour, Curzon, and Findlay Shirras for 1911 (both figures) are official estimates. These two estimates by Findlay Shirras were made by him in his official capacity but estimates by the same author for later years are not official figures.

than to total income, and secondly, for the purpose of eliminating differences in the area covered by different estimates. The figures of average income per head can be influenced by errors in the population figures by which total income has been divided. I am, however, not concerned here with errors arising out of the population figures. I am concerned only with defects in the estimation of the total national income, which are necessarily reflected in these figures. It is not unreasonable to take up this attitude, in particular, as the figures in the table are not offered as reliable estimates of average income but are brought together for reference and convenience in following the description given in this section of the methods of estimating national income adopted by different writers.

Table 1.—Estimates of the National Income of India Converted into Average Income per Head of Population.²

Author of the Estimate.	Year to which the Estimate Refers.	Average Income per Head of Population.	
		Rs.	a.
1. Dadabhai Naoroji ..	1868	20	0
2. Baring and Barbour ..	1881	27	0
3. Digby	1899	18	9
4. Curzon	1900	30	0
5. Findlay Shirras ³ ..	1911	Old method	50 0
		New method	80 0
6. Wadia and Joshi ..	1914	44	6
7. Shah and Khambeta ..	1922	74	0
8. Findlay Shirras ..	1922	116	0
9. Findlay Shirras ..	1931	63	0

The method on which all these estimates depend is to treat national income as the aggregate production sometimes net sometimes gross, of the country. As a census of production

² I should like to warn those who may be tempted to draw conclusions as to changes in average income per head from the figures in this table, that these figures are not comparable.

³ The difference between the 'old method' and the 'new method' of Mr. Findlay Shirras is explained in the text.

has never been held in India an 'inventory' of production is attempted.⁴ The basis in each case is an estimate of the value of crop production, which is often called 'agricultural income'. Dadabhai Naoroji explained the method followed by him in these words—"I have taken the largest one or two kinds of produce of a province to represent all its produce as it would be much labour for me to work out every produce, great and small. I have taken the whole cultivated area of each district, the produce per acre, and the price of the produce; and simple multiplication and addition will give you both the quantity and value of the total produce". From the crop production estimated in this way he deducts 6 per cent for seed, and adds 63 crores, made up of 17 crores for salt, opium, coal and profits of commerce; 16 crores for fish, dairy produce etc; and 30 crores for contingencies.⁵

Digby's estimate of crop production is worked out on the assumption that the land-revenue bears a definite relation to the out-turn.⁷ These figures of relationship were adopted from Romesh Chandra Dutt's investigation for each province. To the crop production thus arrived at a figure equal to half this amount was added for non-agricultural income.⁸

The four official estimates of Baring and Barbour, Curzon, and Mr. Findlay Shirras (two figures for 1911) were based on the estimation of agricultural income on the same general principal as by Dadabhai Naoroji. But his method of taking a single crop or perhaps two to represent the whole crop production of a province was given up. Instead, an average valuation for food crops and non-food crops was used on the lines of the work of the Famine Commission of 1878. The average price assumed for food crops and for non-food crops was based on the prices ruling in a small number of markets.⁹ The new method of Mr. Findlay Shirras differed from the earlier practice on which one of his own estimates for 1911 was based, in so far as value of each crop was separately estimated¹⁰. Non-agricultural

⁴ For an explanation of the difference between the 'census' and the 'inventory' methods see Stamp, Sir Josiah, method used in different countries for estimating national income, *Journal of the Royal Statistical Society*, vol. xcvii pp. 435-36.

⁵ Dadabhai Naoroji, *Poverty and Un-British Rule in India*, p. 4.

⁶ *Ibid.*, p. 25.

⁷ Digby's estimate has been worked out in his book *Prosperous British India*.

⁸ See Shah and Khambetta, *Wealth and Taxable Capacity of India*, p. 65.

⁹ Shirras, G. Findlay, *The Science of Public Finance*, 2nd edition p. 141.

¹⁰ *Ibid.*, p. 141.

income was estimated on the simple assumption that the contributions made by agricultural and non-agricultural population to the total national income were in proportion to their numbers. So that having estimated the agricultural income the non-agricultural income was worked out from figures of population.¹¹

Mr. Findlay Shirras's estimate of 1922 is worked out on the same basis as that of 1911 (new method) so far as agricultural income is concerned, but as regards non-agricultural income he believes that the assumption that contributions of agricultural and non-agricultural population were in proportion to their numbers was not justified in 1922 on account of rapid development in the industrial technique of the country. He, therefore, adds the sum of Rs. 75 crores to the figures arrived at on the proportionate basis in order to get the non-agricultural income.¹² How he arrived at Rs. 75 crores is not stated.

Mr. Findlay Shirras's figure for 1931 has been deduced from the figures for 1922 and 1927 by an ingenious but hardly dependable method in the circumstances of the case. The figure for 1922 and 1927 are estimated in the manner described above. Then taking 1922 as the basic figure, he increases national income in proportion to an index of business activity, which he gives but does not mention how it was calculated, in order to arrive at national income in 1931 at the prices of 1922. This figure is corrected for changes in the price level between 1922 and 1931 by dividing it by the general index-number of prices for 1931 calculated with 1922 as the base year, to give an estimate of the national income at the prices of 1931. The same process is repeated with the 1927 figure of national income as the basis. The two figures for 1931 obtained in this way are averaged to get the final estimate of the national income in 1931.¹³

Messrs. Wadia and Joshi work out the agricultural production in the same manner as Mr. Findlay Shirras but deduct 20 per cent of the value as cost of seed, manure, etc. The value of mineral products is also estimated directly from the figures of production and a deduction of 20 per cent made in order to

11 *Ibid.*, p. 143. Shah and Khambetta state that in the estimate of Baring and Barbour, and of Curzon an allowance equal to half the agricultural income was made for non-agricultural income, *op. cit.*, pp. 64-67.

12 Shirras, G. Findlay, *op. cit.*, pp. 143-144.

13 Shirras, G. Findlay, *Poverty and Kindred Economic Problems in India*, Government of India publication, p. 42-43.

arrive at the net figure. As regards other elements of the national income they state, 'We have in the case of fisheries, and industries, and cottage industries resorted to an occupational census, estimating the average earnings and multiplying by the number of people engaged in them as given by the census returns. In the case of manufactures we have taken the figures of gross valuation of commercial crops, mineral products, and other products, and calculated the added value in manufacture at a fifth of the gross value.'¹⁴ As no occupational census has ever been held in India the first element in this calculation must be as arbitrary as the second. In order to arrive at the national income, they make further deductions from the value estimated in the manner described above of an amount equal to the 'home charges,' investment of foreign capital during the year, profits on foreign capital invested in India, and remittances on private account.¹⁵

Messrs. Shah and Khambetta's estimate¹⁶ is more elaborately worked out than any other but in the absence of statistics relating to important spheres of economic life can hardly be considered more reliable than some of the others. Agricultural income is estimated in the usual way and deduction is made for seed. Gross production of large industrial establishments and of mines is taken from published statistics but net production is arrived at arbitrarily. As for other items like fisheries, dairy products, cottage industries and small-scale industries, 'bold guesses' are made, to use the words of the authors. A feature of this estimate is that services are deliberately left out of account.

2. Defects of the Existing Estimate of National Income.

This description of the methods employed in estimating the national income of India shows that the authors had to work with data which was unreliable and utterly inadequate for making a satisfactory inventory of production. They were also not quite clear in their minds as to what was precisely the entity they were attempting to estimate. The foundation of each attempt is an estimate of the value of crop production. In the later attempts, which are more elaborately worked out, this value has been arrived at for each crop in the following manner:—

$$\text{Area} \times \text{Standard yield} \times \text{Condition of crop} \times \text{Price.}$$

¹⁴ Wadia and Joshi. *The Wealth of India*, p. 95.

¹⁵ *Ibid.*, pp. 105—07.

¹⁶ See *Wealth and Taxable Capacity of India*.

Out of these four factors, there is only one—area,—which is known with a fair degree of accuracy, and that only in those parts which are not permanently settled. In permanently settled provinces the statistics of area are admitted to be worthless except for one or two crops like jute and tea. The standard yield and condition of crop figures are highly unreliable. The standard yield figures are generally old estimates of doubtful validity, not based on properly conducted crop-cutting experiments.¹⁷ Figures of condition of crop are based on vague impressions of village officials related to an ill-defined standard and expressed in anna notation. The price factor is also not available in a form which can be considered satisfactory.¹⁸ Further difficulty is introduced on account of mixed crops. Large areas are sown with mixed crops for which no standard yield can be adopted. But even if these difficulties were not present and a reliable estimate of gross figures of crop production could be arrived at, it would be impossible to reduce it to net production as no data as to cost of production of crops is available.

In estimating items of national income other than crop production one is on even less firm ground. No statistics of production covering these items are available except for the gross production of certain major industries and certain minerals. The produce of forests, dairying, fisheries, small-scale industries, cottage industries, and all other items of income are entirely outside the field covered by the published statistics of the country. Their absence is made up either on some simple assumption as to the relation between the contributions of the agricultural and non-agricultural population to the total national income, as in the estimates of Curzon and Mr. Shirras, or they are dealt with by the method of making 'bold guesses.'

But even if available statistics were reliable and the large gaps which exist at present were filled, a further serious difficulty would still remain. It is by no means certain that all the authors were striving to estimate the same entity. While most of the authors make some attempt, however imperfect and unsuccessful it may be, to get at the net production, Mr. Findlay Shirras somewhat unexpectedly comes to the conclusion that 'the income of a nation is not the value of the net output but the value of the commodities produced and services performed in a twelvemonth

17 For a description of the manner in which standard yield is arrived at see *Estimates of Area and Yield of Crops, 1931-32*, p. 41.

18 For a detailed criticism of statistics of crop production see Bowley and Robertson, *A Scheme for an Economic Census of India*, pp. 35-40 and pp. 43-48.

in exchange for money.¹⁹ Messrs. Shah and Khambetta exclude services from the inventory of national income.²⁰ This procedure is not quite as absurd as has been sometimes made out. There is a considerable body of opinion on the Continent as well as in the U.S.A. which favours this practice.²¹ On the other hand Bowley, Stamp and Flux would include services in their definitions of national income. Again, the authors are not sure whether it is the income accruing within the geographical boundaries of India which they want to estimate or only that part of it which is earned by the Indian people. Double counting has not always been avoided,²² and the relation of tax-revenue and interest on national debt to national income has not been clearly understood.²³ These differences lead to further confusion.

In order to be able to estimate the national income satisfactorily, it is first of all necessary to clarify the concept of the entity we want to estimate. The concept is related to the uses to which we may want to put this estimate. It is therefore necessary to state the purpose for which it is desired to estimate the national income and to define the concept rigorously in relation to this objective. Only after this preliminary step, alternative methods of estimation can be usefully discussed.

3. The Concept of National Income.

It is not possible, within the scope of this paper, to deal with the concept of national income comprehensively and exhaustively. The literature on the subject is vast, and each writer has approached the question from a point of view relevant to the purpose at hand. I can take up only the more important aspects of the questions and, in particular, those which appear to have special significance in relation to the existing estimates of the national income of India. The most important point about national income is that it is to be conceived of as net addition to the wealth of a country during a period of time. Marshall states that 'the

¹⁹ *The Science of Public Finance*, 2nd edition, p. 144.

²⁰ *Op. cit.*, chapter iv.

²¹ See Stamp, Sir Josiah, Methods used in different countries for estimating national income, *Journal of the Royal Statistical Society*, vol. xcvii, p. 424-25.

²² For instance, Wadia and Joshi deduct from their estimate 'home charges,' investments of foreign capital, profits on foreign capital, and remittances from India on private account. They also deduct value of new investments twice instead of once. *Op. cit.*, pp. 104-07.

²³ For instance, the Taxation Enquiry Committee considered that the land-revenue was a deduction from the national income. *Report*, p. 67.

labour and capital of a country, acting on its natural resources, raise annually a certain net aggregate of commodities, material and immaterial, including services of all kinds. This is the true net annual income of the country The National Dividend is at once the aggregate net production of, and the sole source of payment for, all the agents of production within the country.²⁴ In making estimates of national income in India this point has not always been kept in mind, and even in the British Census of Production only the cost of raw material used is deducted from gross production.²⁵ This net addition to the wealth of a country is made up of a large number of distinct and separate items of wealth. As soon as an attempt is made to state this heterogeneous mass as a single quantity, it becomes necessary to convert these items into their money value. At this stage a certain arbitrariness is introduced. It is not found practicable to convert every single item. Only those items which are actually sold for money are included, together with certain others which it becomes necessary to include on account of custom or some peculiar feature of the economic structure of the country.²⁶ A majority of the items of net wealth not sold for money is left out. So that in practice, the national income of a country becomes the aggregate money value of the net flow of goods and services for which money payments are actually made, together with the estimated money value of certain items which do not fall within this category but which convention has decided to include in the national income. It is this quantity which Bowley, Stamp and Flux attempt to estimate, and it has become the accepted definition of national income though this conception is largely conventional.²⁷

The object with which estimates of national income are made is to arrive at a concrete and objective counterpart of economic welfare with the help of which changes in the economic welfare of a nation as a whole can be studied. To what extent can national income as defined above serve this purpose? In order to serve the object for which estimates of national income are made, it is necessary that we should strive to arrive at comparable

²⁴ *Economics of Industry*, pp. 257-58.

²⁵ See *British Census of Production, 1907*, and Pigou, A. C., *Economics of Welfare*, 1st edition, pp. 36-40.

²⁶ The British practice is to include all items which are actually sold for money, together with the services that men obtain from houses owned and inhabited by the owners.

²⁷ See Pigou, A. C., *op. cit.*, chapter iii, Stamp, Sir Josiah, *Wealth and Taxable Capacity*, pp. 40-48, and Bowley, A. L., *The Definition of National Income*, *Economic Journal*, vol. xxxii,

figures. A single figure of the money value of national income has no meaning. It is only in comparison with other similar estimates that it acquires significance. Estimation of national income as defined above will not produce comparable figures. For the purpose of ensuring comparability between estimates of the same country over a period of time two things are essential,— (1) that attempt should be made to estimate the aggregate money value of the net flow of goods and services actually available for being used, consumed, or saved, and not merely produced, and (2) that the money unit used throughout the period over which the estimates extend should be of constant value.

In order to avoid the first difficulty, the net flow of goods and services from which the money value of national income is estimated should be arrived at after deducting exports from, and adding imports to, the net production of a country. It is this quantity with which economic welfare is connected and not aggregate net production. This a point which appears to be simple enough but it is often ignored, and people write as if national income as well as economic welfare are quite independent of changes in the terms of international exchange.²⁸ To overcome the second difficulty it is customary to divide the money value of national income by the general index-number of wholesale prices. This is hardly a satisfactory procedure.²⁹ It is doubtful if the general level of wholesale prices correctly measures changes in the purchasing power of money. Further, it is not possible to devise an index-number of prices which would be free from criticism in this matter and which should measure purchasing power of money satisfactorily. For the purpose of making comparison from year to year, it is desirable that estimates of money value of national income after allowing for foreign trade,

²⁸ Shirras G. Findlay, The Population Problem in India, *Economic Journal* vol. xliii, p. 71, and Sinha, H., is India overpopulated? *Indian Journal of Economics*, vol. xv, p. 718, seem to think that figures of the money value of the goods and services produced become comparable if they are divided by the general index-number of prices. Thomas, P. J., population and production, 1920—31, *Indian Journal of Economics*, vol. xv, pp. 736—47, would have us believe that India is a peculiar country to which prosperity comes in the disguise of a severe depression. detriment of India, at any rate, towards the end of the period he was the well known fact that terms of international exchange were changing to the detriment of India, at any rate, towards the end of the period he was considering.

²⁹ See Flux A. W., The National Income, *Journal of the Royal Statistical Society*, vol. xcii, pp. 14—24 and Stamp, Sir Josiah, Method used in different countries for estimating National income, *Journal of the Royal Statistical Society*, vol. xcvi, pp. 451-52.

should be supplemented by a properly constructed index of net production. Money value estimates can serve the purpose of comparison between the different components of the national income during any particular year, but for making comparison from year to year an index of the net volume of production is necessary.

The quantity with which economic welfare is most closely related is consumption of goods and not aggregate net production or its money value. Therefore, in order to arrive at a just appreciation of the economic condition of a people, it is desirable if an index of consumption is also used in addition to the index of net production and estimates of its money value. An index of consumption in conjunction with the other two entities will give a fairly comprehensive picture of the economic condition of a people, and will also help to discover how far economic welfare is being affected by organisation of production and how far it is influenced by the processes of distribution by which the goods and services produced ultimately become available for consumption.

A further feature which calls for attention is that though it is customary to estimate the total money value of the national income and to calculate from it the average income per head, it is not merely the total and the average incomes which are of interest. As a matter of fact, for the purpose of relating national income to economic welfare it is of great importance that the complete distribution of income over the whole population should be known. Similarly the value of any indices of production and of consumption will be greatly enhanced if not only the indices of total production and of total consumption are known but also the distribution of these totals over different sections of the population. The three quantities mentioned here, if available not merely as aggregates but as distributions, should enable us to draw a more accurate and comprehensive picture of the economic condition of a people.

4. Random Sample Method of Estimating National Income.

So far as national income conceived as money value of the aggregate of goods and services accruing to the inhabitants of a country is concerned, there are two well known methods of approach for estimating it. The first consists of adding up the incomes of individuals and the second consists of evaluating the total net production of all the production units of a country. The two methods do not lead to the same result unless additions are

made for services and other items not covered by material production, to the estimate arrived at by the second method. If the first method of approach is adopted the estimate is worked out from statistics of taxation of income, supplemented by an occupational census for incomes below the exemption limit. This is the method which has been employed by Professor A. L. Bowley and by Sir Josiah Stamp for estimating the national income of Great Britain. The incomes below the exemption limit are worked out in two parts—incomes of non-wage earners not liable to income-tax and incomes of wage earners not liable to income-tax.³⁰ If the second method of approach is followed, as is done in Continental countries either a census or an inventory of production is made. The value of services and other items of production not covered by material production is separately estimated and added to the result obtained by the census or inventory of production.³¹

In India the first method of approach is not practicable as the income-tax statistics cover a very small percentage of the national income and of the population. If this method is adopted one would have to depend almost entirely on an occupational census. An occupational census is by no means easy to take in India. A census of production is also impracticable on account of prohibitive cost. In India a census of production will be particularly expensive because this is a country of small producers whose standard of education is very low, most of them being illiterate, and who keep no accounts. The only way of getting at any satisfactory figures of their net production is to appoint investigators who will keep a day to day account of their production and cost. Such an arrangement for the whole of India is totally impracticable. Under these circumstances only an inventory of production can be attempted. But we have seen that this method, which is always less satisfactory than the other two, leads under Indian conditions to results which are of no value.

The only alternative in India, therefore, is to depend on the random sample method of estimation. Fundamentally the random sample method is, of course, not a new method of approach. One has still to add up either individual incomes or evaluate the total goods and services produced. It is only a device by which one can estimate the total value of the national income with considerable accuracy by collecting the necessary data from a

³⁰ Stamp, Sir Josiah, *Wealth and Taxable Capacity*, pp. 58–76.

³¹ Stamp, Sir Josiah, *Methods used in different countries for estimating National Income*, *Journal of the Royal Statistical Society*, vol. xcvi, pp. 527–42.

comparatively small number of individuals or production units. The method of random sample is a method of general application in cases in which it is not found practicable to study the whole universe. It gives the value of the whole universe of reference, within known limits of error, from the relatively few items included in the sample. And since the main difficulty in the estimation of the national income of India is the utter impracticability of collecting the necessary data through investigator, whether it is proposed to follow the aggregate income or the aggregate production method of approach, this appears to be the only means of bringing such an estimation within the range of practical possibility.³²

This method has also other advantages. It has been mentioned that even if we adopt the conventional meaning of national income and estimate the aggregate money value of net production, it is not sufficient to know the total value of this quantity or its average value per head of population. It is important in evaluating the economic significance of a total of this kind to know how it is distributed. The method of random samples enables us to determine not only the total value within known limits of error but also gives the distribution of income.

If it is desired to supplement the conventional value of national income by indices of net production and of consumption, the use of this method is particularly convenient. The investigators collecting data of money income, can from the same individuals collect figures of net production and of consumption, thus giving us three random samples as a result of one investigation. From the statistics obtained in this manner the indices of net production and of consumption can be worked out.

It is not my purpose in this paper to refer to the purely statistical problem of the technique of the random sample method suitable for India, or to discuss which particular type of indices of production and consumption will prove most satisfactory. I wish simply to point out that the method followed so far in estimating the national income of India cannot give reliable results, and that the only practicable method appears to be the method of random sample. It has the added advantage that if one is not entirely interested in the conventional concept of the national income but desires a complete picture of the production, distribution and consumption of the country, this can be obtained with very little further effort.

³² See Bowley, A. L., and Robertson, D. H., *A Scheme for an Economic Census of India*, chapter ii.

THE NATIONAL INCOME OF INDIA

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1. The Nature and value of National Income Estimates.

Marshall defines national dividend as "the net sum-total of things and services produced." It includes only goods and services that can be measured in money, and thus many important items in economic welfare are excluded. Various anomalies arise by this mode of computing national income. Most valuable services like those rendered by mothers and wives are excluded from national income, but those of maid-servants are included; therefore if many persons married their maid-servants, national income would immediately show a decrease. Similarly, when the British M.P.'s came to be paid, the national income rose by £250,000. Valuable philanthropic services are not taken account of in national income, but the most ordinary (even anti-social) services come into it if they are paid for. Such difficulties have persuaded some economists (notably the Hungarian, Fellner) to exclude services from estimates of national income, but this would make such estimates of little real value. As civilization advances, a smaller proportion of people in a country will be engaged in producing material goods, while a growing proportion will be engaged in providing immaterial enjoyment as singers, preachers, artists, lecturers, etc. The increase in the flow of enjoyable things makes a country richer and to exclude them from computation would make national income a poor indication of the nation's economic welfare.¹

A proper estimate of national income must enable us to measure the goods and services available for the community and for the different economic groups composing it, but this is not possible, as national income takes into account only such goods and services as are exchanged. In advanced industrial countries, where free goods and services are of little account, national

¹ Sir Josiah Stamp, in the *Journal of the Royal Statistical Society*, 1934, p. 425.

income estimates may be useful; this may also be so where large-scale agriculture is carried on, as in Australia and Canada. But in lands of small farming (as in India) where a large part of the goods do not come into exchange, and services are largely customary, estimates of national income must have serious limitations. In the sunny tropics, the requirements of heat and light and house-room are limited; and many of the goods needed—water, fuel, building material—are comparatively free, at any rate in rural parts. In a peasant culture, the bulk of the crops are for consumption in the peasant's family, and only a small part of the produce (except in 'money' crop areas) go to the market. The Indian social system also contributes to the same result. Can any one estimate the free services rendered in this country by one's family and caste in connection with birth, marriage, illness, funeral, apprenticeship of children, building and repairing of houses, and a host of other items which in other countries have to be paid for? This largely detracts from the value of national income estimates in the case of countries like India which are still dominated by a rural culture of a fairly self-sufficing nature. It does not give any indication of the real measure of goods and services, and the income figures of such countries cannot be compared with those of lands more advanced economically.²

The true measure of a 'country's economic welfare cannot be known by the sum total of goods and services available; we must know the quantity actually available to people of various economic groups. At present this is indicated by figures of *per capita* income, but these are mere abstractions and do not give any clear indication of income distribution.³ The *per capita* income of a country like England may be high, and yet a large proportion of the people may be poor and ill-fed. On the other hand, in a country like Denmark or Switzerland, the *per capita* income may be comparatively low, but economic welfare may be more evenly distributed. Therefore, carefully drawn-up family budgets of different economic groups in the community will give a more accurate indication of economic welfare than mere *per capita* incomes. At any rate, what can be the value of *per capita* income figures estimated for the whole of India?

² The error of making international comparison of incomes has been emphasised by Sir Robert Giffen (*Economic Enquiries and Studies*).

³ For the theoretical shortcomings of the *per capita* estimate, see Bowley, *The Nature and Purpose of the Measurement of Social Phenomena*.

A good part of the difficulty arises from the use of the money measure in estimating national income. With every rise and fall of the price-level, the national income estimate will also rise and fall, but this may give no true indication of the effect on economic welfare. This is particularly true of India where the bulk of the agricultural product is for consumption by the producer. Between 1928-29 and 1933-34, the total value of the principal crops of British India fell by about 53 per cent, but this does not indicate a *protanto* fall in national welfare.

On all these grounds, the present estimates of national income are a poor index of a country's economic welfare and this is specially true of agricultural countries like India. Thus, comparisons between the national incomes of different countries are deprived of any great usefulness. The income estimates of the different countries are not comparable, and no safe conclusions can be drawn from them. The whole conception of national income is so vague and its measurement necessarily so inexact that many economists have discarded it as unsuitable for use in any accurate theoretical analysis.⁴ However, estimates of national income may be of some use for watching the general trend of economic welfare in a country from year to year, and even for this purpose the estimates must be carefully made.

2. Income Estimates in India.

The two principal methods of measuring national income are: (1) a summation of individual incomes and (2) aggregation of goods and services. In countries where income and wage statistics are fairly complete, the income-summation method may be used with advantage, but where such statistics do not exist, we have to depend chiefly on an evaluation of goods and services. That is to say, we must add up the net products of agriculture, live-stock, industries, mining, fisheries, forests, etc., and must evaluate the net incomes derived from trade, transport, the professions, public services and domestic service. In Great Britain both methods have been employed and the results tallied fairly well. A census of production was taken in 1907 and it was repeated in 1912 and 1924. But in the case of India statistics of income and wages are not available except to a very limited extent. Those assessed to income-tax are much fewer in India

⁴ Keynes (J. M.). *The General Theory of Employment, Interest and Money*, pp. 37-38.

than in Western countries,⁵ and we have no means of estimating the incomes of the great majority. Accurate information on wages is also lacking. In these circumstances, we have to depend chiefly on an aggregation of goods and services.

For such an aggregation, we have some materials at present, although all of them are not of the best quality. For estimating agricultural production, we have a system of crop statistics which in some ways is unique. Since 1934, we have also statistics of production of many organised industries;⁶ but on unorganised industries which employ more than six-seventh of the industrial population, and on other important parts of national income—live-stock, fisheries, mines, forests, trade, transport and the professions—we have no reliable data.

We have indeed some statistics of agricultural production in India, but they comprise only the large crops and even in regard to those crops, the production figures published cannot be entirely depended upon. They are based on certain crop forecasts made by Government. These forecasts were originally started for revenue purposes (especially in temporarily settled tracts) and for giving indications about famine and distress. For such purposes, these statistics are helpful, and they may be of some help for commercial purposes, although with many limitations, but as material for estimating national income, they are of little use. The forecasts are based on (1) the area under cultivation, (2) the standard yield or normal outturn per acre and (3) the 'condition factor' or *annavari* estimates. By multiplying these three factors, total outturn is estimated for about seventeen crops; and a rough census method is in use for the plantation crops of tea, coffee and rubber. An examination of the three basic factors just mentioned will bring out the weakness of these statistics. The area figures are supplied by the Revenue Department and are fairly correct, except in the case of permanently settled tracts (Bengal, Behar and parts of U.P. and Madras). The standard yields were originally based on crop-cutting experiments, but in many provinces the standard yield has not been revised for a long time in spite of the steady improvements in agricultural methods especially in the case of

⁵ The assesses to income-tax in British India number only about 300,000. Even when the taxable minimum was Rs. 1,000, the number came to only about 700,000. Thus only one person in a thousand pays income-tax in India.

⁶ These figures are collected by the Statistical Branch of the Department of Commercial Intelligence and are published in the *Monthly Survey of Business Conditions*.

crops like sugar-cane. In Madras, for instance, the figures made in 1919 are still in use. Since then, the acreage under improved crops has increased largely and thus the official standard yields have become too low. The 'condition factor' is the weakest link in the chain; it is based on mere guess-work, generally by persons who are ill-fitted to make correct estimates. Consequently, the crop outturn statistics published annually are far from accurate, and in the case especially of commercial crops like jute, cotton and sugar, they have been found to be underestimates. This has been repeatedly demonstrated by post-mortem examinations. The annual average production of raw cotton (for ten year ending 1932-33) was 5,380,060 bales, according to final forecasts; but the actual production was found to be 838,000 bales more, the difference being 17 percent.⁷ In the case of jute, the difference between the final forecast and actual outturn was 18 percent. The purpose of issuing several forecasts for cotton and jute is to avoid price fluctuations, but if the forecasts are not fairly accurate, they may, instead of being helpful, "mislead the market, causing violent fluctuations and wild speculation."⁸

Attempts are being made to improve these forecasts in two directions—prospective and retrospective. The latter (the post-mortem method) consists in an accumulation of all available data like export figures, purchase by mills and extra-factory consumption. The other method is the slow one of educating the data-collecting agencies to do their work more accurately.

If such improvements are diligently carried out, the outturn figures of these crops may become more accurate, but what about the numerous crops not included in the crop statistics? For commercial purposes, information on a few leading crops may perhaps suffice, but for income estimates we require statistics of all the produce raised on land, including straw and subsidiary produce. There are several minor crops all over India which are important locally, and these must also be included. Timber, fruits and vegetables must not be left out. And in the case of all these, not the wholesale prices at ports but the actual price received in the village must be entered, as otherwise there will be double-counting at various points.

The national income estimates made in India since 1900 have used these agricultural statistics, supplemented by estimates of

⁷ *Journal of the Royal Statistical Society* 1934 part III pp. 404-5 (paper by Sir H. A. F. Lindsay)

⁸ *Report of the Bengal Jute Enquiry Committee*, (1934), pp. 108-09.

various items not comprised in them.⁹ It was by utilizing these statistics that the Indian Central Banking Enquiry Committee estimated the agricultural income of India at Rs. 1,200 crores in 1928; and by adding 20 per cent for subsidiary occupations, they arrived at a per capita agricultural income of Rs. 42.¹⁰ Although they considered this only as a rough estimate it would have been proper to emphasise the inadequacy and unreliability of the data used. There are numerous pitfalls in the path of those who use these statistics. A Special Officer of the Madras Government lately estimated the per capita agricultural income of the Presidency at Rs. 11-12-0, by adding up the outturn figures of the principal crops and by subtracting 40 per cent from the total for cultivation expenses. It is not necessary to recount here the many mistakes of fact and accounting involved in this computation. As shown above, statistics of production are very incomplete and take no account of important items like live-stock. For converting gross income into net, the officer deducted cultivation expenses, but he thereby excluded the important item of wages which constitutes the income of more than a third of the agricultural population. No doubt he was justified in excluding land revenue, seed, manure, interest on capital, *etc.*, but by excluding such a large item of agricultural income as wages, his estimate of income has become unduly attenuated. Yet he considered his estimate an optimistic one.¹¹

Allied to agriculture are live-stock, fish, forest products, and the various unorganised industries pursued by the rural population. On all these we have very little reliable information. Perhaps the most important of these is live-stock. In several agricultural countries, live-stock is even more important than crops. It includes such large items as milk, butter, curds, hides and skins. In 1924, Dr. Gilbert Slater estimated the live-stock income of Madras Presidency at Rs. 27·60 crores for the year 1919-20, or 9 per cent of the total income.¹² Colonel Oliver, Animal Husbandry Expert to the Imperial Council of Agricul-

⁹ Of the estimates made in the past—Dadabhai Naoroji (1870), Lord Cromer (1882) Digby (1899) Lord Curzon (1900) Wadia and Joshi (1913-14), Shah and Khambata (1921-22), and Findlay Shirras (1920-21, 1926-27)—only the last few had the advantage of even such statistics.

¹⁰ *Report*, Vol. I, p. 39.

¹¹ *Report on Agricultural Indebtedness*, para. 15, (Government Press, Madras, 1935).

¹² *Madras Year Book*, 1923, pp. 788—91.

tural Research, has estimated the annual contribution of live-stock in India for 1929 at Rs. 1,900 crores, made up as follows¹³:—

			Crores of Rupees.
Cattle labour in agriculture	..	..	612
Labour for purposes other than agriculture	..	..	161
Dairy products	..	..	810
Manures	..	..	270
Other products	..	..	15·20
Living animals exported	..	..	0·36
TOTAL			<u>1,898·56</u>

Colonel Oliver does not claim any high degree of accuracy for his computation, and one is inclined to consider it an over-estimate, even as Dr. Slater's was an under-estimate. We have at present no adequate material for estimating the value of cattle labour, dairy products, manures, etc. Colonel Oliver's estimate of milk and dairy products was based on the assumption that 24 gallons of milk was consumed (in the form of milk and products thereof) in India per head per annum—*i.e.*, about 10 oz. per day per person. This is certainly an over-estimate for the Madras Presidency and perhaps for several other provinces. The estimated total consumption thus amounts to 39 million tons, which, valued at $1\frac{1}{2}$ annas per pound, works out at Rs. 810 crores. Findlay Shirras's estimate for milk for 1926-27 came to only 297,928 maunds valued at Rs. 223·41 crores. According to him, the total national income of India in 1926-27 was Rs. 2,804 crores and this has been regarded as a liberal estimate. It is therefore difficult to imagine that the total income from livestock alone would have amounted to Rs. 1,900 crores in 1929.

3. An Economic Census.

It is clear from the foregoing that the existing data for income estimates are faulty and altogether inadequate. In Great Britain, Australia and several other countries, total production has been computed by the census method. But unfortunately in the peculiar conditions of India, it is not possible to collect figures by means of a census of the kind in those countries. Except in the case of organised industries and plantations, it is practically impossible to obtain schedules filled

¹³ Note published by the I.C.A.R.

by the producers. The average ryot and artisan cannot be expected to fill such schedules. A census of a different kind will have to be attempted in the case of agriculture and handicrafts which form the mainstay of the Indian population.

The census undertaken must be primarily on the basis of production but it must be supplemented by a summation of incomes in the case of services and those occupations whose income cannot be recorded in terms of produce. The unorganised industries of India are so intimately connected with agriculture that a survey of the two will have to be made together. Nor is the difference between rural and urban life so great in India as in most Western countries. A simultaneous census must therefore be taken both in villages and in towns. Every village and town cannot be surveyed; nor is it necessary, seeing that a survey of a fairly large number of them selected on the random sampling basis will give us as accurate an estimate as is necessary.

The two British economists who visited India in 1934 on the invitation of the Government of India (Dr. Bowley and Mr. Robertson) have made a fairly comprehensive scheme for an economic census.¹⁴ It consists of the following parts:—

1. A rural survey of 1650 out of the 422,000 villages of British India selected on the random sampling basis, each village being surveyed by a full-time investigator for a whole year.

2. An urban survey of about 30 to 40 out of the 1,603 cities and towns of India classed under that category by the census of 1931. This would represent about 8 millions out of the 28 million urban dwellers in British India.

3. An intermediate urban census of population.

4. A census of production in the case of factories using power, mines and some other industries.

The cost of the whole survey was estimated at Rs. 30 lakhs made up as follows:—

				Lakhs of rupees.
Census of production	..	..	..	2
Rural survey	..	..	..	22
Urban survey	..	..	..	3
Urban census	..	..	..	2
Report	..	..	..	1
TOTAL				30

¹⁴ *A Scheme for an Economic Census (1934).*

It is here proposed to deal with only the rural survey which will necessarily be the biggest of the various undertakings. The experts' scheme is based on excellent principles, but its excessive cost has alarmed many persons. According to Dr. Bowley's note, "the annual net income of each family in the village" must be drawn up.¹⁵ It means working out a balance-sheet of each of the 300 or 400 families in a village, but this will be too difficult even for the most diligent investigator.

For the purpose we have in view, such a summation of individual incomes is not necessary. The method we have adopted is not income-summation, but an aggregation of goods and services. This can be done without drawing up a balance-sheet for each family. We can add up the total production of the village before the produce goes to the houses. In the case of cereals, which comprise about 85 per cent of the total sown area, the harvesting seasons are generally two in most parts, and as threshing is done on a few large common threshing floors in most villages, and as the produce is generally measured or weighed before it leaves the floor, especially where (as in the *batai* tenure) produce is shared between the landlord and the tenant, the actual produce from each field can be ascertained at the threshing floor without any great difficulty. In many parts of the country, weighing and measuring of produce is done by one man (or a few men) for the whole village, and such men could estimate produce accurately even before the crops are harvested. Some of the leading men of the village will also be able to tell soon after the harvest how much produce was raised from each holding.

The advantage of counting up produce in this way is clear. Cultivation may be regarded as a joint undertaking by landlords, tenants and labourers. The shares of all these partners in the business are in the grain-heap. Once it is distributed between the partners, it will be extremely difficult to obtain correct totals. Most people are unwilling to disclose such facts, and as for labourers, they are unable to say how much they receive in a year. Therefore a house-to-house survey will yield poor results. But if we count the produce at the source, these difficulties can be minimized and the work of the investigator will become comparatively easy. The village grain-heap is the fund from which the whole agricultural population draws its income and if it is correctly measured we get the essential data for income estimates.

¹⁵ *Op. cit.*, pp. 70—7.

By a procedure more or less similar, we may also estimate the gross outturn under pulses, oil-seeds, cotton, jute, sugar-cane, and other crops. The traders and the professional weighing men in the village must be utilized for varifying the estimates. They are the best statistical hands in the village and their services are invaluable in a rural survey.

Next we may convert the gross outturn into net by making certain deductions, the first of which is land revenue. Wages need not be deducted, as it forms the income of labouring classes. Seed and interest on capital may be deducted, as they represent the income of previous year, but if they are deducted the income of seed merchants and moneylenders must be estimated and added. A capital solution will be not to deduct them unless they go out of the village. The produce going out of the village as rent or wages must also be deducted and the corresponding incomings into the village must be added to the total. The whole net amount must then be evaluated in money at prices received in the village. To this must be added estimated values of straw, (excluding the part reserved for the cattle),¹⁶ minor crops, fruits and vegetables, timber, fish and forest produce, eggs and poultry, milk and milk products, hides and skins, horns and so forth. The standing crop of fruits and vegetables can be estimated by experienced persons, and milk supply must be computed by studying the yields of a few sample cows. The wages for cattle labour need not be taken as they are included in the grain heap. The income of weavers, spinners, carpenters, mat-makers, cartmen, etc., in the village must also be assessed and added. Finally the incomes received by blacksmiths, dhobis, barbers and village functionaries for services rendered by them (excluding customary payments made for help in the productive process) must also be included. Remittances going out of the village must be deducted from the total and remittances into the village must be added to it. Thus we get the total income of the village.

By working up such village totals, we may estimate the agricultural production and income of the country. But it may not give adequate data about the distribution of the income from agriculture among landlords, tenants and labourers. Such a division of the national dividend is important in countries where there is a clear demarcation between these three classes, but in the case of India, the distinction between the cultivator and the labourer is very difficult to draw; for, a good number of peasants

¹⁶ Dr. Slater excludes straw on the ground that it forms fodder for plough cattle, but not all the straw is so utilized.

do their own labour and even work as day-labourers when they are free. The amount going as rent is important, and this can be easily estimated from the data collected on the above plan.

As has already been shown, family budgets are the most suitable means of measuring the economic condition of the community and of the different groups composing it. It is therefore necessary to collect, from all villages surveyed, budgets of families comprising every economic group selected on the random sampling basis. In order that the budgets may give a clear idea of the real income and standard of living of the various classes, provision must be made for obtaining full details of the food, clothing and house-room available to the different economic groups. Family budgets will also supply ample data for measuring the distribution of the national dividend and the quantity of goods and services which the different grades of income can command.

With the help of the Universities and the active co-operation of the Departments of Revenue, Agriculture and Co-operation, the cost of the census can be kept within reasonable limits. If a thorough census is taken once, the cost of future censuses will not be considerable. India is now taking a step forward in constitutional development and in every province there is keen interest in rural uplift. This is just the time to make an economic survey of the whole country. It will give us valuable data for drawing up plans for economic advance, and it will also give a starting point from which we may measure in future the success of the various efforts at rural amelioration which have lately been inaugurated in different parts of the country.

A CRITICAL EXAMINATION OF SOME OF THE ESTIMATES OF THE NATIONAL INCOME OF INDIA

BY

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The first writer who calculated the national income of India was Dadabhai Naoroji. In one of his papers, which he wrote in 1876, and which subsequently appeared in his book 'Poverty and Unbritish Rule in India,' he calculated the national income for British India for the year 1867-68. Following is the brief summary of his estimates.

Net Agricultural produce	£260' millions.
Salt, opium, coal, profits of commerce, etc.	£17' ..
Manufacturing industries	£15' ..
Annual produce from livestock, fish, meat, etc.	£15' ..
For any contingency	£33' ..
TOTAL	£340' millions.

This was the total income of a population of 170,000,000, which gave about 40 shillings per head or Rs. 20 (at the then rate of exchange, which was Rs. 10 for £1) for an average good year.

There was very little of reliable statistics published at the time when Dadabhai Naoroji calculated the national income of India. His valuation of the total agricultural produce is based on figures available for certain Provinces. But as regards other figures he had no statistics and hence they are approximate assumptions. Take for instance the estimated value of the works of the industrial classes, which is put down as Rs. 15 crores. About 63 per cent of the population was then engaged in agriculture and about 16 per cent in different industries. This gives the average value of the agriculturist's work as Rs. 24 per head, and the average value of the industrialist's work as about Rs. 6. The estimation of the value of the work of those engaged in industries is an obvious under-estimate. On an average the value of the industrialist's work if not more, can hardly be much less than the average value of the agriculturist's work. Moreover he

does not include in his estimate the value of the direct services rendered for money. Such services along with goods produced during the year constitute the national dividend.

In 1882 an inquiry was conducted into the economic conditions of India by Earl Cromer and Sir David Barbour. They summed up the income of British India as follows:

Agricultural Income ..	Rs. 350,00,00,000
Non-agricultural Income ..	„ 175,00,00,000
TOTAL ..	Rs. 525,00,00,000

The total population was then 194,539,000. Hence the average amount per head was calculated as Rs. 27, or about £2 5s. at the then rate of exchange. (Rs. 12 to the £). This was the first official estimate of the income per head of the British India; comparing it with Rs. 20 or £2 per head, worked out by Dadabhai Naoroji for 1868-69, and specially considering his underestimate of the value of the produce of the industries and the exclusion of the value of the work done by those engaged in rendering direct services of all kinds, the above official estimate appears to be in keeping with Naoroji's estimate. The note places the non-agriculture income as half the agricultural income, which was an over-estimate, as the proportion of non-agricultural population to agricultural population was much smaller and the average productivity per head of the two groups was, perhaps, the same.

Another official estimate was made by Lord Curzon for 1901. He based his calculation on the figures collected for the Famine Commission in 1898. His estimate is as follows:

Total Agricultural Income ..	Rs. 450' crores.
Non-agricultural Income ..	„ 225' crores (half the above).
TOTAL ..	Rs. 675' crores.

Divided by the total population, which was then 217 millions, the income per head is estimated as Rs. 30 per year for 1901¹. Like Earl Cromer and Sir David Barbour, Lord Curzen also assumed the non-agricultural income to be half the agricultural income and this was again for 1899 probably an over-estimate; though it cannot be stated without special enquiry whether the

¹ The average exchange value of the rupee in 1899 was 1s. 4d. *Budget, Viceregal Council, Calcutta, 1901.*

non-agricultural income increased or decreased relatively to the agricultural income between 1882 and 1898.

William Digby in his book "Prosperous British India" greatly criticised these estimates. Digby in his estimate of the income of the British India proceeds on a different line. Instead of estimating the total agricultural yield by finding out the average yield per acre and by multiplying this by the total number of acres under cultivation, he takes the yield for different provinces as a certain multiple of the revenue paid to the Government. The ratio which the Government revenue bears to the total agricultural produce for different provinces assumed to be as follows:²

Bengal	..	..	..	5 to 6 per cent.
North-Western Provinces	..	..	..	8 ..
Punjab	..	..	..	10 ..
Madras	..	..	..	12 to 31 ..
Bombay	..	..	..	20 to 38 ..

Multiplying the total revenue of different provinces by these ratios he got the total agricultural income for British India for 1899 as Rs. 285,88,00,000, and he assumed the non-agricultural income to be half of the agricultural income.

Agricultural Income	..	..	Rs. 285 crores.
Non-agricultural Income	..	..	143 ..
TOTAL			Rs. 428 crores.

Divided by the total population of 23·1 crores, the average income per head for 1899 came to Rs. 188-11 or £15 5s. 1d.³ Similar calculations for 1900 gave Rs. 17-4-0 or 23 shillings. The value of the services rendered by those engaged in direct services and professions of different kinds was excluded by Digby in his estimate. He asked himself, "Ought income derived from stocks and shares, and from professional and clerical services to be added to the total value obtained from the products of the soil and from the value imparted to these by agriculture and industrial labour? In the opinion of the present writer the answer is in the negative. Those incomes ought to be excluded, seeing that they are paid from the respective products described.

² Digby took these ratios from R. C. Dutt's *Open Letters to Lord Curzen*.

³ *Prosperous British India*, p. 366.

To include them would be to reckon a portion of the total income twice over, and thus vitiate the result.”⁴

Digby’s method of calculating the agricultural income is very unreliable, the accuracy of his figures entirely depends upon the accuracy of the relation, assumed by him between the revenue and the total agricultural produce, which relation is always varying and uncertain. For a good year he estimates the total agricultural produce for British India to be worth Rs. 285 crores. In other words this is the value of the produce from 200,000,000 acres.⁵ The produce per acre is Rs. 14 only. In terms of actual produce, say, wheat, it would be only about 3 maunds an acre say (4 bushels), which is an under-estimate for a good year.⁶

In reply to these critics and in defence of the official calculations, Atkinson calculated the average income per head for 1875 and 1895.⁷ Both these years ‘being free from unusual and extraneous influences could be favourably compared in order to study the changes in the income per head.’ He divides the population under three heads, (1) agricultural, (2) non-agricultural, (3) classes of sufficient or ample means, according to his estimate the average income per head, after the taxes were paid, was Rs. 30·5 in 1875; and Rs. 39·5 in 1895.

In his estimates both of agricultural and non-agricultural incomes he assumed very optimistic figures.⁸ And to calculate the income of the classes of ample means separately was to count a part of the income twice over. The total agricultural income partly represents the income of those who are engaged in trade in agricultural produce, and they are sometimes the wealthiest

⁴ *Prosperous British India*, p. 529.

⁵ This figure as given by the director General of Statistics is accepted by Digby. *Prosperous British India*, p. 375.

⁶ The average price of wheat is taken as Rs. 4, per maund average for the year 1900, *Price and Wages in India* 1923 p. 88.

⁷ *The Journal of the Royal Statistical Society*. June 1902.

⁸ Compare the yield per acre assumed by Atkinson for some important crops with Digby’s figure of 3 mds. or 246 lb. per acre.

Crop.	PUNJAB.		NORTH-WEST PROVINCES.		CENTRAL PROVINCES.		BOMBAY.	
	Ir.	Non-Ir.	Ir.	Non-Ir.	Ir.	Non-Ir.	Ir.	Non-Ir.
Rice ..	1,167	266	1,018	619	1,200	711	..	1,230
Wheat ..	917	576	980	803	925	570	1,250	550
Barley ..	917	56	989	736	..	..	1,550	670

people. When we reckon the money value of the agricultural produce in terms of whole-sale prices we reckon in a great part of the profits received by the wealthier trading community. Atkinson's higher estimate is partly explained also by the fact that in the total national income he rightly includes the value of the services of those engaged in direct services of all kinds, including the liberal professions, and the Government services.

Almost on similar lines as Atkinson, Horne calculated the national income of India for 1891 as Rs. 28 per head per year. The estimate of the agricultural produce was based on the official reports. As regards the indigenous industries he assumed, 'that the *per capita* income here does not differ much, at least so far as village population is concerned, from that of the agricultural classes. Very different, however, is the case with industries of the modern type, in which large capitals are employed. Here the *per capita* returns are naturally very much greater.' He calculated separately the net income from textile industries, coal mines and railways, and assumed the average income *per capita* in other large scale industries to be the same as in textile. He also adds the income of persons engaged in public services, professions, and liberal arts, in his estimate of the national income. (Bengal Economic Journal January 1918, pp. 74—89).

In most of the above estimates of the national income of India, we find the estimate of the non-agricultural income is based on some doubtful formula. We can see more clearly, how the valuation of the non-agricultural produce becomes hypothetical and speculative in case of Lupton's estimate of the national income of India in his book "Happy India." He assumes that "Those who are engaged in manufacturing have the aid of the steam engine and of science to help their produce, and therefore it is highly probable that as regards pecuniary value their work per head is twice that of an agriculturist." This explains his high *per capita* figure of Rs. 114 for 1919-20.

He forgets that it is comparatively a small portion of the industrial population that is engaged in large scale production and gets the help of the steam engine and of science when we take into consideration the majority, like the village potter the village carpenter, and the village shoemaker who still carry their trade under primitive methods of production we can easily see that Lupton's view does not represent the truth.

A more reasonable view is taken by Dr. Slater, who calculates the income per head for Madras Presidency for

1919-20 as Rs. 102.¹⁰ He takes the average value of the manufacturers' work to be the same as the average value of the work of the agriculturists; on the ground that while the operatives engaged in organised industries have a higher output per head than the agriculturists the great mass of village craftsmen and other unorganised industrial workers produce somewhat less per head than the agricultural worker.

Messrs. Joshi and Wadia in their book 'The Wealth of India' have calculated the income for British India for the year 1914 as Rs. 44-5-6 (or £3) per head.¹¹ They, like the earlier writers, have evaluated the net-out-put in order to arrive at the total income. But their method is much improved. They have tried to estimate the value of the non-agricultural produce directly and more carefully. They have taken the net value of manufactures as 20 per cent of the gross total value of raw materials, used in the various manufacturing industries: and have valued the work done by the artisans and the labourers engaged in trade and transport at four annas per head per day for 310 days, for 18,000,000 men. But Like some of the early writers they fail to give any consideration to the work done by those who are engaged in direct services.

Messrs. Shah and Khambatta in their book "The Wealth and Taxable Capacity of India" calculate *per capita* income for whole of India for the war, pre-war and the post-war periods. Following the tradition of the early writers, they calculate the national income in terms of 'net-out-put.' As far as the out-put of the organised industries and mines is concerned they have relied on the increasing industrial statistics. But the valuation of the work done by those engaged in different handicrafts and cottage industries is still conjectural. According to their calculation the money value of the total industrial out-put for 1921 is Rs. 186 crores. Of this 146 crores represent the value of the out-put of organised industries, and only Rs. 46 crores the value of the out-put of the handicrafts and cottage industries.¹² This gives the value per head of the work of those engaged in cottage industries as Rs. 30 compared with Rs. 541 for those engaged in organised industries and Rs. 214 for the agriculturists. The valuation of the work of those engaged in handicrafts and cottage industries appears to be an underestimate.

¹⁰ *The Madras Year Book*, 1923.

¹¹ *Wealth of India*, Chapter VI, p. 108.

¹² *Wealth and Taxable Capacity of India*. Chapter V, p. 198.

These authors share the view of Messrs. Wadia and Joshi regarding the direct services, which do not find any place in their estimate of the national income. This is not due to any neglect, but their very definition of wealth and the national income excludes them. Wealth is defined as consisting of external, material and tangible commodities only."¹³ At another place they remark "Such services only which create utilities fixed in external and material objects have a right to be included in the calculation of a nation's wealth. Services the product of which consists merely of such non-measurable things as comfort, convenience security, safety, pleasure, relief from exertion etc., have no right to be included, because these utilities, however useful they may be to production, are not themselves wealth."¹⁴ Not only the services of the professional classes and the domestic servants are to be excluded, but even "the services of the commercial classes will have to be for the most part excluded" and also the services of a considerable part of the class engaged in transport. Naturally this leads to the view that "the share which the non-industrial classes receive in exchange for their services cannot be counted as if it were so much more wealth in the community; their share involves a corresponding reduction of the share of the industrial classes."¹⁵

This view of the authors needs no comment. It is only reviving the old and crude distinction between 'productive' and 'unproductive' labour; and, in accordance with that distinction, they have adopted a very narrow conception of national wealth, as consisting of material and tangible commodities only. This view of the national income adopted by Messrs Shah, Joshi, and some other Indian economists runs counter to the generally accepted view amongst modern economists. As Marshall suggests "Social income consists of every thing that is produced in the course of a year, every service rendered, every fresh utility brought about is a part of the national income. Thus it includes the benefit derived from advice of a physician, the pleasure got from hearing a professional singer, and the enjoyment of all other services which one person may be hired to perform to another."¹⁶ "Pigou also emphasises the same fact." It is entirely plain that the national dividend is composed, in the last resort, of a number of objectives services some of which are

¹³ *Wealth and Taxable Capacity of India*, p. 11.

¹⁴ *Ibid.*, p. 50.

¹⁵ *Ibid.*, p.

¹⁶ *Economics of Industry*, p. 25.

rendered through commodities while others are rendered direct.”¹⁷

Mr. Fidlay Shirras in his estimate of the national income of India correctly takes the view that “the income of a nation is not the value of the net out-put but the value of the commodities produced and the services performed in exchange for money.” His estimate of the *per capita* income for 1921 and 1922 is Rs. 107 and Rs. 116 respectively.¹⁸

Unfortunately Mr. Shirras resorts to the doubtful expediency of regarding non-agricultural income as a certain proportion of the agricultural income. He takes it as about 45 per cent of the agricultural income, although the proportion of non-agricultural population to agricultural population is much less than this. This is bound to give an over-estimate of the non-agricultural income. For the great mass of non-agricultural population, their average income can hardly be more than the average income of the agriculturists.

To obtain a more accurate estimate of the national income of India the following suggestions may be taken into considerations.

(1) Direct and a more carefull estimate of the mon-agricultural income should be made.

(2) If the total national income is estimated by adding up the income of the various classes of people, the remuneration for direct services must be included in the total estimate. And if it is estimated by finding out the value of the net produce, then, to this must be added the value of all the direct services rendered for money.

¹⁷ *Economics of Welfare*, Chapter II, p. 31.

¹⁸ *The Science of Public Finance*, p. 142.

AN EXPERIMENT IN THE CO-ORDINATION OF RAIL AND ROAD TRANSPORT

BY

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The object of this short note is to draw the attention of the Economic Conference to the co-ordination of rail and road transport which has recently been effected in H. E. H. The Nizam's Dominions. The results of this attempt at co-ordination, even during its short life of only five years, have been sufficiently encouraging to induce the authorities to turn the experiment into a permanent arrangement which would gradually be extended to the entire Dominions.

The haphazard, unregulated and mushroom growth of the motor lorries, mostly driven by the owners themselves, was not only responsible for extreme irregularity, over-crowding and other inconveniences to the public but was also seriously undermining the earning capacity of the Nizam's State Railway, in the same way as it is doing in the case of the other railway systems of India. The Hyderabad Government could not look upon this state of affairs with equanimity, as it had recently acquired the ownership and management of the railway from the British guaranteed company. A capital of more than fourteen crores of rupees is invested in this property which is contributing an income of more than 106 lakhs of rupees annually to the State exchequer. If no steps had been taken to remedy the situation created by the unrestricted and unfair competition of private lorries, the newly acquired railway would have created a most embarrassing financial position for the State. The situation was therefore serious and demanded the immediate attention of the authorities.

The Railway Department did not lose much time in making elaborate enquiries or in adopting the wasteful and ultimately useless methods of "counter competition." It decided straight-away upon the operation of road motor transport by the Railway. No legal restrictions, as those referred to by the Mitchell-Kirkness Report on Road and Railway Competition, came in the way. A beginning was made with a modest fleet of 27 buses in 1932 and the railway was given a monopoly of service over certain

selected routes. The progress of the experiment, which is perhaps the first of its kind in India, may be judged from the following table:—

No.	PARTICULARS.	1932-33.	1933-34.	1934-35.	1935-36
1.	Route mileage open ..	283'7	594'5	1,232'0	1,354'0
2.	Capital outlay	Rs. 4,19,473	7,47,125	15,62,600	22,50,696
3.	Number of passenger buses in service ..	27	48	86	118
4.	Number of passengers carried ..	1,477,907	3,397,077	5,200,106	7,008,715
5.	Total gross earnings	Rs. 2,83,822	5,75,781	9,81,886	13,33,939
6.	Total working expenses (including contribution to depreciation fund)	Rs. 2,47,932	5,00,947	8,25,626	10,92,914
7.	Net earnings	Rs. 35,890	74,834	1,56,260	2,41,025
8.	Percentage of net earnings on capital outlay ..	8'56	10'0	10'0	10'7

A recent communique issued by the Director of The Information Bureau goes to indicate that, by the end of the current official year, the number of buses is expected to reach 235, the route mileage to 3824 and the capital outlay to as much as O.S. Rs. 50 lakhs.

It is only just to characterize this progress, which has been made during a short period of five years, as remarkable.

The chief objection to railways operating road motor services is that it involves a monopoly. But monopolies are not necessarily harmful. A number of businesses in modern times can only be worked through monopolistic organisation. Their utility or otherwise depends on who the party is to whom the monopolistic gains accrue. We have, in these days, a number of examples of huge monopolies being worked entirely in the interests of the general public. Moreover, the N. S. R., by introducing its bus services, is not creating a new monopoly, but is only substituting one public monopoly for a number of private ones. For one of the obstacles in the further extension of the railway bus services is that most competitive roads are at present worked under monopolies owned by private individuals and cannot be taken over until these expire. Lastly we know, upon the authority of the Mitchell-Kirkness Report, that most of these "objections are often over-stated and (that) there are always methods of controlling them (i.e., monopolies) so as to prevent victimisation of the

public." Even competition, if allowed to develop unrestricted, can bring untold misery to the public, as we are learning to our cost in recent years.

The basis of charge by the railway buses is 6 pies per mile in Osmania Sicca which is equivalent to 5 pies in British Indian Currency. It is only fair to indicate here that on some of the parallel roads, taken over by the railway, private buses were charging fares at about O. S. 4 pies per mile. Some people may regard this as a serious point against the railway buses. But again a reference to the Report, quoted above, will show that "on many motor bus routes the fares now charged, either in competition with the railway or in competition with other buses, are often uneconomic, and the railway administration could of course only charge an economic rate." In a large number of cases the private motor lorries are owned (and driven) by men of extremely small means who ply their miserable trade under extremely uneconomic conditions and are ready to go to any lengths in order to retain their hand-to-mouth living. Naturally, no well-organised business working under strict regulations can any where hope to compete with such 'insolvent adventurers.' But the important point to note is that such uneconomic competition is bound, sooner or later, to come to an end, after which the rates are bound to rise to the economic level.

It is interesting to know that this experiment in co-ordination is not meant to be confined to rail and road transport but is intended to include the air service also when, as is expected, when the State begins to operate its own air services. This is certainly a step in the right direction. Instead of allowing a fresh competitor to grow quite independent of, and perhaps in opposition to, the organisation which is already existing, it is better to anticipate, as far as possible, the probable course of future development and to take practical measures, calculated on the one hand to preserve the existing property in its most useful form and on the other not to thwart the development of more up-to-date and economical ways of achieving the same end.

The Hyderabad experiment in co-ordination has, I think, a lesson for the rest of India. It is no use theorising about the merits and demerits of competition and monopoly. The real point is that none of them is an end in itself. They are rather the means of realising a definite object, *viz.*, the provision of a cheap and efficient means of transport to the public. This object can, in the present circumstances be best achieved by bringing all the principal means of communication under a single control. Now this control can, at any rate in India, be only of the State.

Hence the most suitable, though somewhat drastic, line of action for the future seems to be that the whole country should, for purposes of transport, be divided into a few large Zones or Divisions of suitable sizes and all the principal means of communication within each Zone or Division should be brought under one traffic authority. These Divisional Traffic Authorities should then be linked into a sort of Federal organisation which would be the Supreme Traffic Authority in the country. Only thus can we "expect to eliminate wasteful competition, provide cheaper and better means of transport and open up hitherto inaccessible regions to trade and traffic."

COASTAL SHIPPING IN INDIA

BY

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Problems of transport must have been in existence in the world ever since man had goods to carry from one place to another; and as production became more and more organised, transport has begun to occupy a position of increasing importance in the economic structure of nations. Transport, in orthodox economics, comes under production which is considered complete only when the commodity reaches the hands of the consumer. Things of little or no utility in one place immediately acquire utility on being carried to different places and it is but right to regard transport by land, water, and—latterly—air as an important requisite for national prosperity. The growth of inventions and discoveries during the last century has revolutionised transport, expanded the markets of the world, annihilated distance and made of the world a single productive unit. The isolation of vast regions of the globe has been effectively broken and countries which hitherto had little commercial contact have drawn together so that the wheat from Canada and the meat from South America compete for custom in the markets of Europe. Therefore, it is no exaggeration to say that transport is the life and soul of trade, the most potent stimulus to production both agricultural and industrial.

The importance of shipping as an essential means of transport has been recognised in all countries. The shipping industry has been recognised as a national asset and since it requires years of experience, skill and labour for its development Governments of countries like England, Germany, U. S. A., Denmark and Australia have all given every possible help and encouragement to this industry. Within the last four decades Japan has built up a marine which is next only to those of Britain and the United States. In 1895 Japan had only 339 ships with a tonnage of 279,668 tons; in 1920 she had 1,940 ships with a total tonnage of 2,995,878; in 1933 she had 2,019 ships with a total tonnage of 4,258,159.

The importance of shipping has not been sufficiently recognised in India. Though railways have developed to a

considerable extent in this country inland and coastal traffic have not been improved and the economic development of the country has been seriously hampered thereby. Deficiency in communications and difficulties of transport along with an uneconomic freight policy have conspired to arrest the development of commerce and industry in India; and the need of the hour is the recognition of the imperative nature of an all-round improvement in transport, not the least part of it being coastal shipping.

If we study for a moment the position of India in the map of the world we feel that nature has purposely set India in the centre of Southern Asia, midway between Africa and the continent of Australia, within easy distance of many populous regions and fertile countries. India is herself rich in her natural wealth, though to-day the poorest of nations judged by *per capita* income, and one direction in which the prosperity of our country can be restored is the development of coastal shipping as a prelude to further strengthening of our trade and industry. With more than 4,000 miles of coast line, with an abundance of good ports both in the east and the west, with a populous hinterland rich in the produce of agriculture and in the raw material for industry India occupies a position favourable by nature for a vigorous and efficient shipping industry. Such an industry will provide remunerative employment for thousands of our countrymen. And yet it has been urged that Indians have no maritime instincts that capital is shy and that even if it were available it would be an unwise and unremunerative diversion of funds which can be utilised for better purposes. Some of these latter arguments are nothing short of flying in the face of historical facts. Even from mediæval times India was the queen of the Eastern seas and the extent and efficiency of Calcutta's ship-building industry was testified to in 1800 by Lord Wellesley, Governor-General of India.¹ Says Wellesley: "It is certain that this port will always be able to furnish tonnage, to whatever extent may be required, for conveying to the port of London the trade of the private British merchants of Bengal." Taylor in his 'History of India' confirms this view and remarks that the arrival in London of Indian produce in Indian-built ships created such a sensation among the shipping interests in England that they set up a hue and cry against it. The Board of Directors yielded to the clamour. The introduction of iron-built ships, the changes in naval architecture, the jealousy of British shippers and the rigorous application of the Navigation Acts completed

¹ Report of the Indian Industrial Commission, p. 251.

the ruin of this industry and the ship-builders on the Ganges went the way of the weavers of Dacca.

The following table shows the value of the total seaborne trade of India during the decade, 1921 to 1931 :

TOTAL VALUE			
Year.			Rs. (1,000)
1921-22	..	..	.. 5,81,62.14
1922-23	..	..	.. 6,23,86.09
1923-24	..	..	.. 6,57,43.79
1924-25	..	..	.. 7,57,97.30
1925-26	..	..	.. 6,82,14.04
1926-27	..	..	.. 5,95,61.22
1927-28	..	..	.. 6,29,81.90
1928-29	..	..	.. 6,46,19.60
1929-30	..	..	.. 6,01,67.24
1930-31	..	..	.. 4,30,42.89

In spite of this enormous volume of trade the negligible nature of the Indian share of it will be evident from the following tables² :

² Tables from *Statistical Abstract for British India*.

Tonnage of steam and sailing vessels that entered the ports of British India.

(1) Year.	(2) Total sea-borne Trade of India. Tonnage.	(3) British.		(4) British-Indian.		(5) Native.		(6) Foreign.	
		Tons.	% of (3) to (2)	Tons.	% of (4) to (2)	Tons.	% of (5) to (2)	Tons.	% of (6) to (2)
1922-23	7,298,339	5,419,050	74·3	171,757	2·4	65,059	0·89	1,642,473	24·5
1923-24	8,036,331	5,644,908	70·1	183,345	2·3	68,237	0·85	2,139,841	27·2
1924-25	8,613,587	6,065,711	70·5	126,140	1·5	65,128	0·76	2,356,608	27·1
1925-26	8,301,995	5,792,200	69·8	94,110	1·1	65,515	0·79	2,350,170	28·3
1926-27	8,344,666	5,745,050	68·9	113,978	1·4	56,904	0·68	2,428,734	29·1
1927-28	8,876,840	6,184,868	69·6	123,497	1·4	61,145	0·69	2,507,330	28·2
1928-29	9,517,313	6,605,164	69·4	121,792	1·3	51,135	0·54	2,739,222	28·8
1929-30	9,647,569	6,433,354	66·6	92,202	0·96	50,189	0·52	3,071,824	31·3
1930-31	9,011,540	5,857,507	65·0	81,967	0·91	54,104	0·60	3,017,962	33·5
1931-32	8,370,553	5,596,498	66·9	79,730	0·95	53,674	0·64	2,640,651	31·6

Tonnage of steam and sailing vessels that cleared with cargoes from the ports of British India.

(1) Year.	(2) Total sea-borne Trade of India. Tonnage.	(3) British.		(4) British-Indian.		(5) Native.		(6) Foreign.	
		Tons.	% of (3) to (2)	Tons.	% of (4) to (2)	Tons.	% of (5) to (2)	Tons.	% of (6) to (2)
1922-23	8,196,132	6,240,024	76.2	144,733	1.8	66,354	0.81	1,745,021	21.3
1923-24	8,577,484	6,272,649	76.0	140,898	1.6	71,440	0.83	2,092,497	24.3
1924-25	9,042,485	6,468,955	71.5	147,064	1.6	63,154	0.68	2,363,312	26.1
1925-26	8,833,580	6,159,510	69.7	120,874	1.4	59,555	0.67	2,493,650	28.2
1926-27	8,693,625	6,051,524	69.6	126,555	1.5	56,273	0.66	2,459,273	28.3
1927-28	8,701,752	6,050,182	69.5	130,983	1.5	60,699	0.70	2,459,888	28.3
1928-29	9,354,844	6,520,890	69.7	115,890	1.2	57,033	0.61	2,661,031	28.5
1929-30	9,736,407	6,553,371	67.3	84,726	0.87	60,793	0.62	3,037,517	31.2
1930-31	8,790,685	5,656,664	51.1	95,141	1.1	63,400	0.72	2,975,480	33.7
1931-32	8,187,710	5,391,176	65.9	81,493	1.0	58,078	0.71	2,656,963	32.4

The following table gives an estimate of the value of the coastal trade during the period:

VALUE OF THE COASTAL TRADE

Year.				Rs. (1,000)
1921-22	..	..	..	2,22,29,84
1922-23	..	..	..	2,19,91,99
1923-24	..	..	..	2,19,35,12
1924-25	..	..	..	2,11,54,33
1925-26	..	..	..	2,18,05,89
1926-27	..	..	..	2,06,58,99
1927-28	..	..	..	2,20,46,10
1928-29	..	..	..	2,09,29,31
1929-30	..	..	..	2,03,25,39
1930-31	..	..	..	1,74,16,06

The decline in coasting trade between 1927 and 1931 is not in any way due to want of scope but it is due to lack of encouragement. The same period shows a marked decline in the volume of shipping built in India.

THE SHIPS BUILT IN INDIAN PORTS

Year.	No. of Ships.		Tonnage.
1922-23	101	5,237
1923-24	83	5,007
1924-25	56	2,094
1925-26	25	1,151
1926-27	62	4,182
1927-28	33	3,321
1928-29	34	1,285
1929-30	29	1,017
1930-31	22	1,140
1931-32	7	224

The following table shows the total tonnage of vessels employed in the trade of India, in thousands of tons:—

Year.	Foreign trade.	Coastal trade.
1924-25	17,656	41,584
1925-26	17,136	43,112
1926-27	17,039	43,481
1927-28	17,579	47,873
1928-29	18,872	49,800
1929-30	19,384	42,026
1930-31	17,791	(Not available)
1931-32	16,552	(Not available)
1932-33	15,708	51,906
1933-34	15,077	51,625
1934-35	16,167	54,334

The above figures are eloquent of the enormous value of India's coastal trade which is three times as valuable as her foreign trade. Even if the trade between India and foreign countries is left untouched the control of her coastal shipping will be of enormous importance to the people of the country.³ But the fact remains that a major part of even this trade is in the control of foreign companies. The two most important shipping companies in India are the British Indian Steam Navigation Company, Ltd. and the Asiatic Steam Navigation company. Both of these are British-owned. The B. I. S. N. has a paid up capital of more than £3½ million, a reserve of about £1½ million and fleet and investments to the value of more than £7 million. In 1931 the company made a net profit of £222,901 and distributed £221,576 of dividends. The company had in 1932, 128 ships with a total gross tonnage of 757,210 tons and dead-weight tonnage of 989,122 tons with an average age of 13¼ year. The Asiatic Steam Navigation Company was registered in 1878 and reorganised in 1931. As reorganised it has a capital of £1 million divided into 10 shares. The A.S.N. took over Turner's Steam Navigation Company. They owned in 1932 16 steamers with a total tonnage of 78,659 tons gross with an average age of 11 years. The largest Indian shipping

³ See *Economics of Shipping*, by S. N. Haji.

company is the Scindia Steam Navigation Company. It has a share capital of about Rs. 90 lakhs. In 1931 it made a net profit of about Rs. 2 lakhs and paid a total dividend of about Rs. 1½ lakhs. It has a fleet valued at about Rs. 60 lakhs. It has ten steamers with a gross tonnage of 43,076 and a total dead weightage of 71,591 with an average age of ten years. Other steam navigation companies are the Bombay Steam Navigation Company, the Bombay and Persia Steam Navigation Company, the Persian Gulf Steam Navigation Company, the Bengal-Burma Steam Navigation Company, the Indian Co-operative Navigation Company, the Eastern Steam Navigation Company, the Malabar Steamship Company, R. Assaria and Company, Eastern Peninsular Navigation Company, the Bombay Steamships Limited, and the Cowasjee Dinshaw Brothers. In this connection it will be interesting to note that the India Government pay the P. and O. Company Rs. 6 to Rs. 7 lakhs every year for the carriage of mails. Subsidies are also paid to other companies for the same purpose: Rs. 15,18,000 to the B.I.S.N. Co., Rs. 67, 320 to the R. S. N. Co., and the I. G. S. N. Co., and Rs. 2 lakhs to the Irrawaddy Flotilla Company. Besides these India pays enormous sums in freight charges both for the import and export of goods. The freight rates she has to pay are decided solely by the foreign shipping rings and combines. Leaving out the charges for imports India pays £8½ millions on her export goods which amount to 7½ million tons. Judged by the tonnage of vessels cleared the following freight amounts were paid by Indian to foreign countries in 1929-30:

FREIGHT PAID TO FOREIGN SHIPPING

Vessels.

British	..	..	..	Rs. 77 crores.
German	..	..	..	„ 0'7 „
Japanese	..	..	..	„ 0'6 „
Italian	..	..	..	„ 0'6 „
Dutch	..	..	..	„ 0'5 „
U. S. A.	..	..	..	„ 0'3 „
French	..	..	..	„ 0'2 „
Norwegian	..	..	..	„ 0'2 „
Other vessels	..	..	..	„ 0'3 „

TOTAL .. Rs. 11' crores.

It is also undeniable that the freight rates worked adversely to the interests of India. Freight rates between Indian ports and foreign ports are greater than those between foreign ports of equal distance. This neutralises to a very large extent the natural protection that an industry might expect in its own country by reason of the distance of foreign manufacturing centres. The following table proves the point:

	1913	1932	1933
From Karachi to Europe . . Rs.	17-8	22	27
From Bombay to Europe . . „	17	22	27
Freight Rate in European Waters . . „	23	21	22
Freight rate in United States Waters . . „	24	16	13

Indigenous shipping is also handicapped by the attitude of the Shipping Conference which resorts to cut-throat competition, to the deferred rate system⁴ and also to rate wars. Though shipping is not completely amenable to national laws it restores the national exchange in times of abnormal trade conditions and forms an important asset in the national balance-sheet of maritime countries. From such an important industry India too should profit and a powerful mercantile marine is essential not merely for the maintenance of our self-respect but for affording employment for thousands of young men who now are unemployed or inadequately employed. There are no more profitable forms of business than navigation, marine, engineering and insurance and no wonder therefore that there has been an increasing agitation for the reservation of coastal traffic to Indians and for the active participation of Indians in the coasting trade.

Sir P. S. Sivaswami Iyer moved a resolution in the Assembly for the development of the Indian Mercantile Marine and the Government of India appointed a Committee to consider and report on the measures to be taken to further the object advocated in the resolution.

The Committee recommended (1) that a training ship should be established, (2) that provision should be made for training marine engineers and (3) that arrangements should be made for the progressive reservation of coastal trade for Indian ships. It was suggested that Government should buy the British lines and

⁴ *The Deferred Rebate System—Indian Shipping Series : Pamphlet No. 3.*

transfer them to Indian hands and that Government should give facilities for the development of shipyards and for the establishment of the ship-building industry.⁵ The only action taken by the Government on these recommendations was the establishment of the training ship *Dufferin*. This ship turned out efficient Indian cadets as mercantile marine officers. But Government have not been overenthusiastic about the matter and agitation for action by Government still continued. In 1925 Mr. K. C. Neogy gave notice of a Bill but since Government wanted to consult their law-officers in England Mr. Neogy did not press the measure. On 22nd March, 1928, Mr. S. N. Haji moved a bill to reserve the coastal traffic of India to Indian vessels. On 7th September, 1932, Dr. Ziauddin Ahmed moved for fixing the minimum rates for the passenger carrying trade by sea between the coastal ports of India.

Various methods have been suggested for improving the position of Indian shipping. Some of them are reservation of coastal shipping to Indians, giving subsidies for the development of the industry, regulation of the rate war by fixing maximum and minimum rates and by securing greater co-ordination between ports and between rail and sea traffic. There has been a prolonged and persistent agitation for the reservation of coastal shipping and it is imperative on the part of Government to encourage this national industry. Direct and indirect aids have been given to shipping in all progressive countries of the world.⁶ France, Italy, Australia, Spain and Japan have all given bounties and subsidies for construction and navigation of ship and postal subventions to steamship services are given in all parts of the world. Germany, the Netherlands, Belgium and the U. S. A. have all given exemptions from import duties for ship-building materials and coastal traffic has been assured for its nationals in almost all civilised countries of the world. In Great Britain the Cunard Company is given an annual grant for maintaining a ship of approved speed and recently Government gave all facilities for building the *Queen Mary*. In Belgium, the Loyd Royal Belge line receives an annual credit and certain Brazilian shipping lines are also in receipt of subsidies. The German Government sets apart every year certain amounts for assistance in ship-building and in order to preserve its political independence

⁵ See *Indian Mercantile Marine Committee's Report*.

⁶ *Minutes of the evidence* recorded by Indian Mercantile Marine Committee, pp. 31—36.

Japan pays the heavy expenditure involved in building up her mercantile marine. Ever since 1871 Japan has steadily and persistently developed her mercantile marine. In 1883 she had 680 ships aggregating 110,100 tons and to-day she is one of the premier naval powers of the world. Australia too has protected her costal trade by imposing certain regulations under her Navigation Act. That Indians too should wish to develop their own mercantile marine for their own costal trade and coastal defence is therefore only a natural and legitimate desire and it is an elementary duty of the Government of India to meet the wishes of the Indian people in this matter. As in other countries adequate subsidies should be given to the shipping industry and the building of ships in India should be encouraged in every way.⁷ In fairness to Indian enterprise a part at least of the subsidy given to British Companies should be given to Indian concerns. Government has recognised the need for State ownership and management of Indian railways. It is time they recognise the vital importance of the shipping industry to this country and buy up some at least of the lines and run it themselves at least till they can be handed over to Indian companies. In the competition with the giant British industry the infant shipping industry of India needs protection and safeguard. The minimum that Government can do is to insist on Indianisation in the companies trading in India and protecting the interests of Indian companies already on the field.

The next important problem that has to be considered is that of rate war. This has also been the subject of long controversy. In 1921 the Deck Passengers Committee in paragraph 35 of their report observed that the coasting trade in Bengal was in the hands of one or two companies and held that fresh enterprise would be stimulated if rate war is abolished and recommended the question of minimum rates to the consideration of Government. It is a matter of common knowledge that this pernicious rate war by well-established companies drove the Bengal Steam Navigation Company and other small Indian concerns to liquidation, even handkerchiefs and sweetmeats being offered to passengers who were carried to their destination free of charge.⁸ So moderate and humane was the rate war in Bengal. Even recently in June-July 1934 the Conference lines announced rapidly increasing rebates on freights, which amounted in some cases from 70 to 80

⁷ See *Trade, Tariffs and Transport in India* : K. T. Shah.

⁸ *Legislative Assembly Debates* : Wednesday, 7th September, 1932, Vol. IV, No. 3, p. 287.

percent. The extent of the rate cuts is illustrated by the reduction to Rs. 2 of the freight on a ton of rice from Burma to Bhawanagar, from an original rate of Rs. 9/8. Similar reductions in freights were effected in all the coastal ports and the position of the smaller companies in this cut throat competition can be very well imagined.

The history of the recent rate war that raged between 1st August and 16th November, 1934, throws a flood of light on this question. Before this rate war began the Conference consisted of four leading companies: the British India Steam Navigation Company, the Asiatic Steam Navigation Company, the Bombay Steam Navigation Company and the Scindia Steam Navigation Company. The last came into the Conference after suffering for long under a severe competition and when the agreement was revised in 1933 the Scindia Company secured slightly better terms. The Bombay Steam Navigation Company is a rupee company with European managing agents. The B. I. S. N. belongs to the P. and O. group and is the dominant company in the Conference. It is closely associated with the Asiatic which is mainly engaged in the sugar trade from Java and also in pilgrim traffic. Over against the Conference group stands a small organisation of the lesser shipping companies consisting of the Bombay Eastern Steam Navigation Company, the Malabar Steam Navigation Company, the Merchant Steam Navigation Company and the National Steam Navigation Company. During the last few years several fruitless attempts were made to include the smaller companies in the Conference. The failure was in large measure due to the insistence by the Conference on restrictions on the routes and activities of the smaller companies. These failures made matters still worse, especially for the smaller companies. Competition reached its worst phase when the Asiatic Company withdrew from the Conference and started rate-cutting. Other companies were forced to fall in line and this meant disaster to the less well-established of the concerns and loss to all. Many motives and causes have been suggested for the action of the Asiatic: the fall in the Java trade, influential support from Britain and desire to strangle smaller Indian enterprises. It is noteworthy that the Asiatic placed boats particularly on the lines where Scindia's ships plied. On 2nd November, 1934, the Asiatic again joined the Conference and the freight war came to an end.⁹ On the

⁹ *The Indian Economist*, Vol. III, p. 750; and Vol. IV, p. 570.

11th December, 1934, an important conference was held at Delhi under Sir Joseph Bore to settle this question.

It is needless to point out the loss involved in a rate war like this. It revealed not merely the helplessness of smaller companies but even more the need for interference by Government in order that the smaller enterprises may be saved from extinction. The Government of India has to take up the task of fixing the economic rate and of bringing together all the shipping interests under the Conference. Rebates have also to be regulated and fixing of the maximum rate may also be attempted. Such regulations are even now in force in the United States. The Shipping Act of 1916 as amended in 1920 prohibits a number of competitive practices.¹⁰ The Act prevents shipping companies getting preferential rates from insurance companies, restricts deferred rates, prohibits the use of 'fighting ships' (i.e., ships specially introduced to drive out an existing service) and insists upon the publication of and strict adherence to fixed rates. Therefore in this matter it is plain that Government action is urgently called for; and if such action is taken Government would be doing only what every other country has years ago done for its own nationals; such action involves no leaping in the dark; the only thing that is wanted is a sincere determination on the part of the Government to foster and encourage the Indian Shipping Industry.

The problem presented by the Indian ports is of no less importance in the rehabilitation of the shipping industry in this country. In recent years Indian ports have struggled against and suffered under not merely trade depression but also a growing competition between ports on the one side and railways on the other. The port returns in some of the major ports have been going down year after year; and this should in part be ascribed to the opening of new ports. Calcutta has been affected by the competition from Chittagong, Madras by the opening of the Vizag, and Cochin harbours and Bombay's northern trade has been seriously handicapped by the rise of Karachi and the Kathiawar ports. On the 7th October, 1933, the Vizag. Harbour was opened to shipping. Vizag. is essentially a port of the Central Provinces and the opening of this harbour has brought Central India nearer the sea by about 150 miles. Large areas of land hitherto untapped by commerce have been opened up and in addition to the possible exports of groundnuts and linseed, manganese promises to be the principal export of this harbour.

¹⁰. *Economics of Transportation*, by Locklin, p. 698.

It is estimated that within a few years about half a million tons of manganese will be exported from this port alone. The development of the Cochin harbour has also increased tremendously the facilities for handling goods by sea; and the cry for the development of smaller harbours continues to be heard. It is clear, therefore, that harbours are a national asset whose importance is increasing day by day. They are as important as the railways and it is essential that they are made economically self-supporting instead of continuing, as they do at present, merely on the sufferance of railways. It is consequently undeniable that the problem presented by the Indian ports calls aloud for effective action by the Government of India. This action should be directed towards securing a co-ordination of policy between railways and ports and a more effective liaison between the customs authorities and the railway board. Such action will have far-reaching effects on the economic structure of the country.

But instead of such co-operation what we now find is a very severe competition between the railways and the ports. To give some instances. In the carriage of rice and grains from Cocanada to Malabar ports the M. and S. M. Railway Co., and the S. I. Railway Co., started keen competition in 1930 and the serious reduction in rates led to the diversion of goods from the sea route to the rail route as the following table indicates¹¹ :—

Comparative statement showing exports by rail and by sea from Cocanada to Malabar ports.

Year.		By Rail.	By Sea.
1929	.. ..	48,386	4,31,227
1930	.. ..	37,687	3,43,154
1931	.. ..	55,864	1,246

Similarly the import of wheat by sea from Karachi to Calcutta has been seriously threatened by the rate-cutting by the railways. The following table shows the increase in rail traffic and affords an index to the diversion of trade :

Year.		Sea Route.	Rail Route.
1931	..	76,062 tons.	39,038 tons.
1932	..	98,721 ..	88,937 ..
1933	..	37,409 ..	1,21,035 ..

From Calcutta special concession rates have been allowed for

¹¹ *Indian Finance*, Vol. XIII, 1934, pp. 1445, 1508 and 1638.

grains, pulses and seeds to Madras, gunnies to Ahmedabad and for chillies to Tuticorin; from Bombay special rates have been introduced for piece-goods to Calcutta. Railway rates between ports have always been specially lowered. Since 1932 these features have been accentuated. It is altogether desirable that railway earnings should increase; but it would be a pity if it is at the expense of the coastal shipping especially in view of the importance of shipping both as an essential transport service and as an element of defence in a maritime country like India. The policy of Government should be to put down uneconomic rate-cutting and cut-throat competition between sea and rail. What is wanted is co-operation and co-ordination, not cut-throat competition and the swallowing of the lesser enterprises by the larger ones.

So far the policy of Government towards Indian shipping has been one of persistent inactivity and resolute irresoluteness. This attitude is deplorable in view of the grave consequences it would entail on this national industry struggling for existence in the face of strong and organised competition. The attitude of the Government of India stands out in striking contrast to that of many foreign governments which have helped their well-established industries directly and indirectly. In view of Chapter III Part IV of the new Government of India Act darker days are still ahead of the industry unless Government wakes up to the grave peril in which this industry stands and follows a sympathetic policy. Lord Irwin as Viceroy of India recognised the justice of the Indian claim though action on it is yet to be taken. If Indian enterprise is not to be wiped out of this branch of industry effective and immediate intervention on the part of Government is necessary. As indicated above this must take the form of direct and indirect aid, bounties and subsidies, fixing of the minimum rate, and securing co-ordination and balance among the different forms of essential transport in the country. If India's resources in the matter of transport and communication are to be pooled in the interests of her nationals a central ministry of transport becomes an imperative necessity. Nationalisation of Indian coastal shipping is certainly an important direction in which Government can show their practical sympathy towards the Indian people and their readiness to meet their legitimate aspirations. This will promote employment, and increase the capacity of our people for national defence. It is the task of statesmanship to see that this too does not add to the list of forlorn causes which tell sad tales of neglected opportunities for understanding and true co-operation.

TRANSPORT CO-ORDINATION

BY

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The Economic Age.

We are living in an economic age. Never before in the history of the world has economics become so vitally interlinked, with so many, and such varied departments of human life. Touch but the veins of any branch of human expansion and development, and you seem to touch the pulse and beat of the economic life. Political system may be changed; philosophic convictions may be set aside; new resources of nature may be discovered and technical devices may be invented—in a word, any development in the range of human knowledge and experience, is sure to bring about concomitant changes in the economic order. So delicate has this order become, that even temporary phases of human passion such as Yellow Peril, Bolshevistic bugbear, and political stunts of racial superiority, cast their menacing shadows upon it. No where is this tendency so well marked as in the system of transport.

Land Mark of Human Civilization.

But epoch making inventions bring about epoch making changes. This is so true of transport, that the history of transport may be said to be the history of our civilization, and notable advances in transport are landmarks in the history of human endeavour. Ages ago "footing it" was the only method of transport. The highest speed attained by man in that primitive process is about 21 miles an hour. He was not satisfied with it. He requisitioned the horse and almost doubled his speed. Appetite growing on the speed it fed, he caught the gale in his sails and skipped over seas and oceans, flirting with winds and waves. Divine discontent still working in his bosom, he imprisoned the steam and ran his trains at the break neck speed of over sixty miles an hour. He invented electricity and pulled his car faster than the steam engine. Then the automobile came, and Daytona Beach witnessed him racing at the speed of 254 miles an hour. And lately with the giant strides made in the science of aeronautics, the conquest of the air marked a great

turning point in the history of Transport; and we see him leaping into the blue vaults of heaven and chasing the very sound of his voice at the speed of four hundred miles an hour. It is this latest phase of transport that gives a new orientation to our transport problems. Rail *versus* road, and both *versus* sea have to be ultimately solved in the direction of road-cum-rail-cum-sea—all co-ordinated with air.

The Indian Railways.

The Era in which the railways had played a leading rôle seems to have passed away with the nineteenth century in many countries. The advent of competing systems of transport is no doubt the main cause. The U.S.A. have not only stopped their railway extension, but even, abandoned about 1380 miles, of their branch lines. The railway extension is so rapidly declining in Europe, that the post-war rate of increase amounts to only 4 per cent. Our railway system comprises about 42,000 miles. We employ about 819,000 men with a pay list of 40 crores of rupees per annum. Of the capitalized amount of 795 crores of rupees, 499 crores are our national asset. From this point of view, our railway system seems to be unique in the world. Having started our railways, as early as the middle of the 19th century, and having reached the third position in the world in mileage, still we are tackling the elementary problems of railway running. Ticketless travel, provision of decent comfort for the bulk of the passenger traffic, scheduling the trains to the convenience of the travelling public, and re-adjusting the goods rates to the interest of national trade and commerce are problems long ago solved and shelved else where, but here, in India, they are still in the discussion stage in our latest railway conference. One consoling feature of our railway system is, that we are performing the wonderful feat of eating the cake and at the same time having it. For the seven years ending 1931, we earned for the general revenues 41.65 crores of rupees, and built up a reserve of about 20 crores of rupees. In years of prosperity, had we set the social net product we got from the railways against their liabilities towards the general revenues, and started building them up to modern needs—a policy in which principles of efficiency could outweigh those of commercialization—they would have weathered the difficulties, and successfully stood the competition of modern transport systems. In the year ending 1934, there was a deficit of 38 crores of rupees; 22 crores towards the depreciation funds, and 16 crores toward the general revenues. Computing the loss to

the railways on account of motor transport competition at the rate of 1·9 crores of rupees per annum, still several crores are left to be accounted for. Not all can be laid at the door of trade depression, specially when we take into consideration the challenge thrown by motor transport to the technics and economics of the operation of the railways in some of the spheres which they had hitherto held in monopoly. Considering the great rôle they play in the economic development of the country, the large places they fill in our modern industries, and the valuable asset they form in the balance sheet of our national account, their successful working is of vital concern to every Indian.

The Automobile.

In a country of vast distances like ours, the railways for a long time to come will form the backbone of our transport system. But India is a country of teeming villages too. Whilst other countries have been fast industrializing we have been, since 1891, progressively ruralizing ourselves. The main steel roads of India planned according to the old colonial principles, leave untouched huge undeveloped areas. Most of the 60,000 miles of the metalled roads run parallel to the rail-roads and wastefully duplicate transport services. The economic life of the villages lying within the great rectangle of the grand trunk roads is, as slow and unwieldy, as it was when Lord Dalhousie opened the first railway. Should we not consider the automobile infection which India got from the U.S.A. and Europe as a blessing in disguise? It seems that we started only yesterday with motor transport, and yet we see everywhere a quickening of the economic life,—creation of new domestic industries, opening up of new residential districts, widening of the village markets, enlargement of the feeding area of railway traffic, the easing of the city congestion, and the reorganization of our village economics—not to speak of the excellent service it has rendered to our railways by rousing their dormant capacities, by making them more efficient in their operation, less discriminate in their traffic, more considerate to the public, and less old-fashioned in their services. The loss which the railways have sustained by the competition of motor transport is more than offset by the progressive changes initiated everywhere. Should we wonder then, that the automobile craze has caught the imagination of the average Indian who is in favour of more buses and metalled roads in spite of the smell of the exhaust pipes and the powder of the road dust?

Road-Rail co-ordination.

But no one can be satisfied with the present condition of the motor transport. It is still in the infant stage. It is hopelessly unorganized to-day. The risky, one-man-owned, irregular, and overcrowded bus is the most unreliable element on which to base our transport co-ordination. But let us be fair. If the public has the right to demand services up to the standard specification of modern transport, it has equally the obligation to provide for the means whereby motor transport can occupy the privileged position in the public utility services. A large capital; a clear definition of its economic sphere; a certain security of service within it; and the construction of metalled roads are indispensable requisites. How can capital and enterprise flow into a field, in which a strong and highly capitalized industry as our railways compete and carry on war? How can competition be stopped, if the economic sphere of each is not defined, and the great rural highways are not opened, to divert parallel running? Given a motor transport system, with a well-defined sphere and up-to-date and efficient service, it will be difficult for any railway to abstain from co-operation and co-ordination. The benefits that accrue to the railways from such a co-operation are too great to be given up. Think for a moment of the increase in the passenger traffic to long distances, the tourist traffic stimulated on account of the facility of fast services at the terminals and the intermediate stations; the increase in the season-ticket traffic, the increase in the conveyance of motor industry materials, the traffic in the road building materials, and the enormous goods traffic caused by the tapping of regions hitherto untouched by the world market. If the U.S.A. are fast developing a model transport co-ordination between their competing systems, it is because the railways and the automobile have risen equal to the occasion by defining their economic spheres. The Railways receded to their newly adjusted sphere sacrificing their branch lines; the public upheld the automobile with their taxes, and the Federal Government liberally contributed about 6000 million dollars upto 1929 for the development of rural highways.

Indian Shipping.

The third party in our transport co-ordination is the Indian shipping engaged in our coastal services. We may add to it our inland river traffic. They form unfortunately the cindrella of our transport systems. "The history of the efforts of shipping," says Sir Visvesvaraya Iyer, "for a proper share in India's sea-

bourne trade and for the privilege of carrying Indian goods in Indian bottoms will be recorded as one of the countries hardest fight for existence against well organised interests." No student of transport economics will forget the fate of those hardy sons of the soil who plied their cargo laden boats on the Buckingham canal by the side of the South Indian railways. The tragedy of the Bombay Broach Shipping Co., that failed before the Bombay Government could come to its rescue, is well known as the classic case of the B. B. C. I. showing how railways, by competition, can stifle any well meant enterprise. To the detriment of river Traffic, was not Calcutta market given over to Java sugar by the discriminating rates quoted by the E.I.R. and the B.N.W.R. for river cum-rail route against U.P. and Bihar sugar? Ages ago, when the steam ship was unknown, Indian crafts carried silk, muslin, and spices to the ports of Egypt, Arabia and Persia. Our merchant men swarmed the seas of Siam and the Sunda Islands and raided the coast of China and Japan in search of market and merchandise. Compare today our position in shipping with other nations of the world the U. K., the U.S.A., and Japan have to their credit, 19·7, 13·3, and 4·3 million tons of shipping respectively. And India with her long coast line, excellent harbours and broad rivers, commanding the centre of Asia's interoceanic routes, is no where among them. What is wanting in us? Is it enterprise? Of the 32 companies started by enterprising Bombay we have killed twentyfive. Is stamina wanting in us? Thousands of Indian seamen run their primitive crafts in export and import trade competing with the modern leviathans. Indians man most of the vessels run by foreigners in Indian waters. Boats plying the mighty rivers of Assam and East Bengal are entirely managed by Indian serangs. The benefit of the British contact over a century and a half, that is so well reflected in our railway system which compares favourably with many advanced nations, has unfortunately been not so happy in our own shipping enterprise.

The development of our coastal shipping is of utmost importance in our national Economy. We cannot ignore this vital link in our transport co-ordination. The Indian Railways do not seem to know any *quid pro quo* in this line of co-operation. But the days of pure profit making economy are long past especially for a public utility service. We are living in an age which evaluates economic factors principally in terms of social net dividend. These days, no system of modern transport can ignore this tendency and yet occupy an esteemed place in the co-ordination of public utility services. The Indian Shipping too

has its own economic sphere of operation. It is her coastal trade, unfortunately not in her possession, to-day. That most of the maritimes nation of the world have reserved their coastal trade to their own nationals is a valid proof. Only a strong naval nation-like England can forego this privilege and stand the competition of foreign shipping. The day does not seem far off when a strong, united, and well-co-ordinated Indian transport will be able to dictate terms to foreign shipping and wrest from it the economic sphere rightly belonging to our own shipping.

Air Transport.

Hitherto we have been surveying our transport co-ordination from the rail road and sea point of view. Now a new technique has not only challenged the economic sphere of the terrain transport, but also given it a new orientation. During the war whilst Hell's Angels played their terrific game with shots and sharpnels, little did we think then that they would give up their destructive stunts for calm and peaceful commercial transport. But the war had raised the national barriers too high. In consequence the express international traffic broke down. A means for reestablishing it and overcoming the national boundaries was badly wanted. Again, the war had shown the value of the various units of the Empire, and it had knitted closely the ties that bound them. A faster communication was needed to foster this precious inheritance. Besides creating these demands it placed at our disposal the war time experience of aviation and the war planes remaining idle. These factors gave birth to civil aviation. The credit of doing the pioneer work in this direction must be given to the farsighted intrepid officer commanding the R. F. A. in the Middle East. As early as 1918, at a time when the Aeronautical science was still experimenting, Major General Salmond with his brave men, without a wireless directional, without any hope of relief in case of a breakdown, surveyed the routes over inhospitable deserts and laid the foundation of the Imperial routes bridging countries hitherto considered impassable.

India Commands inter-continental Air Routes.

Happily for us, India is incorporated into three great airways of the world. By her splendid geographical position, she forms a central base between Europe and the Far East with a command of England, Australia Air traffic. Our favourable all-season flying weather, our moderate atmospheric conditions less liable to fog, the visibility of the natural guidance over our

terrain, coupled with the traditional courtesy and hospitality of the princes, the people, and the Government of our land—all these have invited three great aviation companies of the world to make in India important bases of their routes. The Royal Dutch Air Lines, known as the K. L. M., the world's senior traffic company that took predominant part in championing the cause of the freedom of International Aviation in the convention I.N.A. with her fast fleet of Fokkers and Douglas D.C. 2 has flung her biweekly—Amsterdam, Batavia service across India, bringing Karachi and Calcutta in communication with Oslo, Stockholm, and Leningrad. This Dutch daring and enterprise offering a three days' trip between Jodhpur and London, not only captured the first prize in the London-Melbourne Handicap race, but also, the Far Eastern Mails of the Federal Government of the U.S.A. Not less fortunate are we in the "Air France." She has flashed her trail across four continents comprising three fourths of the Globe from Saigon to Santiago on the Pacific. On this line, the passenger can fly from Canton to Calcutta, across the Hindustan to Afghanistan and Persia and thence to Damascus; and changing his craft in any one of the Mediterranean ports under the French flag, speed on to Dakar on the coast of North-West Africa; and crossing the South Atlantic for Natal, land in Buenos Aires, nay, even cross the Andes to Santiago in Chile. She has proudly kept up the French tradition for excellent cuisine and luxurious comfort of the passengers. Her security can be gauged from the index of insurance which is lower than that of the French Automobile transport. As the result of the union of four competing companies she offers us an example of transport amalgamation.

The Imperial Airways.

Not the least among the trio of Air lines is our Imperial Airways. She has won the leadership in pioneering through all the stages of the multi-engine air crafts, long before any other nation took to them. In the progressive realization of financial autonomy, in the economic operation of keeping cost proportionate to speed, and in giving a service fast enough to be availed by many, the Imperial Airways hold a record among the European air transport companies. The expert committee of the League of Nations in giving the first place in the award of merits for financial autonomy said that the Imperial Airways are perhaps second to no other European line as regards economic working. Mr. Anthony Fokker of the Netherlands, a celebrated name in the aeronautical circle, says: "The Imperial Airways will soon have at their disposal twelve giant aeroplanes, and twenty-eight four-

engined seaplanes, all of the most modern design. I have the greatest admiration for the steady lines of development they have followed. I have noticed that this is the policy of British Aviation in general. The Imperial Airways have never allowed themselves to be influenced by the temporary spurts of competitors although they use them as stimulating influences. I put them up as an example to others, my own country included." It is to this efficient and up-to-date system that our inland-air-transport systems—The Tata's Air Service. The Indian National Airways, and The Indian Transcontinental Airways are linked up, bringing Bombay, Madras, Lahore, Chittagong, Dacca and Trivandram within the arteries of the world air routes.

India's great opportunity.

Now we are on the threshold of a great achievement. When the system will be reorganised and perfected into the Imperial Air Mail Scheme, the Empire air transport will attain a position in the world air transport parallel to the position of the navy. The development of that scheme bids fair to give the benefits of air travel to ten citizens of the empire where hitherto she gave to one. All first class mails are to be carried to any part of the Empire without any surcharge. A two-and-a-half days trips between London and Karachi, five services a week between India and England, reduction in cost, improvements in comforts and convenience, are promised in the near future. Its prospects will be immensely increased when the scheme will be co-ordinated with the Trans-Atlantic services, the Pan American Airways and the New York—Hong Kong line. In the face of these developments, what will be the future of our transport system? Shall we be still tackling ticketless travel and be crying over rail-road competition? Or rather, shall we not rise equal to the occasion bringing Indian transport into harmony with the International systems and win for India a prominent place in the world transport? This international aspect of our transport system is a compelling factor in our future transport co-ordination. It will not only demand the efficient and economic operation of each system, but also, a perfect co-ordination of services without destructive competition. How speedily such a co-ordination had been brought about in America is a matter of common knowledge. In the re-adjustment of respective economic spheres, the American Railways have abandoned, their branch lines, to motor transport, and their first class long distance mails to air transport. Motor transport, in turn has handed over the long distance full-car-load traffic to the railways, and the port to port traffic to the airways.

In England another form of co-ordination enables a station on any British railway, to pick up a parcel and rail it to London from where it will be conveyed in bus to Croydon and thence by air to any part of the world.

Economic Sphere and the National Net Product.

What then is the economic sphere? Upon what principle should the co-ordinating authority define and limit its boundaries? The economic sphere of a transport system is that field of operation in which it can give the greatest good to the greatest number. It is conditioned by two factors: the maximum benefit to the nation, the national net product; and the profit accruing to the agency considered as a commercial body, the commercial net product. In an ideal co-ordination of all the transport systems of a country both these factors must be reconciled. There are times when the commercial net product ought to be ignored. In 1914, the British, railways surrendered this when they placed themselves at the disposal of the Nation. For national welfare, railways cheerfully give this up and regardless of cost render essential services to the country. When they could raise rates and earn a profit they do not exploit the misfortune of their nation. But in normal times, when the controlling authority applies the law of substitution to get the maximum national net product in co-ordinating the various transport systems of the land, and thereby the commercial net product is lost, then the system in question has a right to subsidy. The foremost consideration of a public, utility service is the achievement of the national net product. It is in this spirit that the "Air France" and the "K. L. M." are being subsidised by their national governments.

The commercial net Product.

The commercial side of the economic sphere is conditioned by the operating technique, place, time, the competing transport systems, and other environments. The operating technics of the rail and the road define their respective economic spheres. In the operation of the rail, the longer the distance, the lesser the cost per mile. This is brought about by the decrease of the burden on the ton or passenger mile, of the fixed charges, as well as, that part of the varying charges that does not change appreciably with volume and distance. Besides this, the railway traffic flows along a predetermined track, and hence, the terminal charges are to be incurred at both ends; in proportion to the total cost, the longer the haul, the lower will be the terminal cost. Hence the economics of railway operation gives to the rail the long-haul-

traffic as its appropriate sphere. The motor transport, on the contrary is confined to no fixed track; at the traffic calls it runs door to door. The terminal charges are done away with. Its capital charges being much lower than those of the rail, the varying charges that increase in direct proportion to volume and distance play a predominant part in the cost per ton or passenger mile. Hence the cheapness of the motor transport decreases as the distance operated increases. Again the absence of pilferage risk, splitting charges and intermediate loading and unloading, and the eliminating of expensive packing give to motor transport the short hauls. The spheres defined by the operating technique is not absolute. Time, place, physical features of the surface and other circumstances bring about a different distribution. In the halcyon days of monopoly, the railways were the monarchs of all they surveyed. There was no distinction between long hauls and short ones. All were within their economic province, for short distance traffic could be heavily charged to cover the cost and yet court traffic. Since then circumstances have changed. Now the American railways, in the face of competing system have given up short haul traffic and retained the long haul. But England is a country of short distances and her railways are built mainly for rather short hauls than long hauls. It is difficult for them to give up their main field hence they are given powers to operate terminal services to lessen cost and gain traffic. How physical features of the surface affect the economic spheres of the railways is seen in the communication between Rawal Pindi or Jammu and Srinagar. Two Hundred miles of track running over high mountains and low valleys would entail a large capital outlay and prohibitive operating expenses for any railway; whereas motor transport seems there to be in its own element. Its passengers are offered a two day's trip across magnificent scenery of 200 miles for Rs. 5. Subject to the above mentioned factors that condition the respective economic spheres of transport systems, we may say that, other things being equal, the province of air transport is the speedy trans-continental first class traffic in mails, passengers, and precious goods that can bear the cost. Long hauls on the terrain go to rail; and short hauls to motor transport. Bulky slow moving goods of light value come within the province of sea and river transport.

The Authority Controlling Transport Coordination.

From the principles of the economic spheres discussed, we are led to the nature and composition of the body that can control efficiently transport co-ordination. The safe guarding of

the national net product demands a national control and the realization of the commercial net product needs a functional direction. Of the two factors, the former being the predominant concern, the territorial representation on the body should be so weighed as to give due preference to it. The functional representation on it, comprising men of ripe experience and adequate knowledge of the technics and the economics of the transport industry and its allied interests, will give the necessary corrective needed and ensure the commercial net product. In the normality of things, the ultimate authority of this body should rest with the Federal Legislature. The Governor General in Council responsible to this legislature will be controlling the body through the minister of transport—the ex-officio chairman of this body. This will, not only secure the necessary national control which will be exercised by the Indian Government, but also public criticism, so essential for efficiency. But it has been rightly held that political influence will be baneful for a great industry like transport; and all the more so, when that influence comes from the party system of government. An industrial concern requires unity of action and continuity of policy. The principles on which the party system of government is run, is on the contrary, devoid of this unity and continuity. When one party governs, the other prevents it from governing. The party coming into power most often does so on the score of reverse policy of the outgoing party. Besides expert industrialists have not the time to listen to parliamentary eloquence nor will they submit themselves to the ordeals of election. Hence the high councils of the nations most often are a strange combination of intellectual genius and the industrial ignorance. Any government based on party system is open to the same indiction, be it British or Indian. But in trying to evade the control of the Indian Government, what guarantee is there, that the fire into which we fall, will not be worse than the frying pan. The verdict of the U. S. A. Inter-state Commerce Commission on the control of railways is equally true in this case. "A public utility concern of the magnitude of railways and of such vital importance to the country, cannot and should not be handed over to a body uncontrolled by the nation and free from public criticism." Therefore, the body that controls transport co-ordination as briefly detailed above, would not only secure the national and the commercial net products, but would also make up for the deficiency in the Statutory body controlling the railways in India.

SOME METHODS FOR INCREASING RAILWAY REVENUE IN INDIA

BY

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Introductory.

Recently the Public Accounts Committee of the Indian Legislature following Sir Otto Niemeyer predicted that "even after allowing for a continuous if moderate trade improvement, for all debt conversions, and for the effect of revised pay scales for new entrants, the railways would be less than seven or eight crores short of full commercial solvency. This deficit would be higher, if we make provision for writing down capital from reserve.

There is no discussion, in this paper of the different methods for reducing expenditure; what has been attempted is to indicate a few lines, which railways may usefully explore, for increasing their income under the existing organisation. Of course any examination of the level of freight rates ought to be undertaken in close connection with all the factors that influence the expenditure of the different railway systems. But it must also be remembered that at least the prime costs are dependent on the volume of traffic, which is influenced by the rates policy adopted. The Government have laid down the policy in the past that railway rate-making should be done on commercial principles in the interest of each line. Each railway whether company-worked or state-worked, has been allowed in the past, to manipulate its rates in its own interests and even against the interests of other railways, if such action was needed in the self-interest of any particular railway. We now see however, that competition in railway service of such a character is responsible for enormous waste. It is significant that the British Railways Act of 1921 provided for the grouping of nearly 120 railway companies into four groups. If the railways are to increase their income in India they cannot afford to pursue a frankly individualistic policy. This ought to be possible in India where most of the mileage is state-owned and a considerable percentage of the system state-operated.

Very often a railway has to consider the interests of others, besides competing transport agencies, for example, those of producers and consumers. There must always be room for discrimination in favour of traffic that would help the ultimate good of the railway system. In the first instance, there may be a temporary loss of revenue, but ultimately there would be stimulated increased traffic benefiting the system as a whole. Even in the U.S.A., where under the influence of the Inter-state commerce commission, rates were largely determined by mileage, it is now considered necessary that certain types of discrimination (provided they are not unjust) should be practised by railways. One test of unjust discrimination is whether the locality, in favour of which the discrimination is alleged, has profited at the expense of the locality against which the discrimination has taken place. In the case of port-to-port rates quoted by the G.I.P. or B.N.R. (for traffic between Bombay to Calcutta), the stations on the intermediate non-competitive route, just pay the usual mileage rates on a telescopic basis. It is also not irrational in cases where there is a heavy movement of traffic in one direction only (the largest quantity of traffic on the G.I.P. is in one direction only *viz.*, to Bombay) that a railway should stimulate traffic in the opposite direction, by quoting a lower rate, rather than permit its wagons to return empty. When the E.I.R. applied to the Government for a special low minimum rate for grain and oil-seeds from U.P. to Calcutta, in order to fill their empty, wagons the Government did not sanction such exceptional rates, as it found that such rates to Calcutta would lead to loss of revenue on the G.I.P. and B.B. & C.I. Railways; though the E. I. Railway could carry this oil-seeds traffic at a cheaper cost it was not allowed to do so, with the result that consumers in Calcutta had to pay higher prices for such produce.

Indian railways may also explore the possibility of having a dual system of rates based on the differences in the use of a commodity. The question arose both in the U.S.A. and Canada, whether two different kinds of cream of different values and turned to entirely different uses should be given the same rate and whether two different kinds of apples, of different values and employed for different purposes, one for manufacturing and the other for immediate consumption, should be given the same rate by the railway administration. Ultimately it was decided that they should be given the same rate, largely on the ground, that if a lower rate were given in one case, false declarations may be made as to the purposes for which the commodities were being

used. It would still be worthwhile for our railways to explore this possibility to induce more traffic.

Both in the U. S. A. and Canada, in their anxiety to increase revenue, the railways have voluntarily tried to equalise commercial and geographical conditions in certain sections of the country. The "blanket" or group rates put producers throughout a district in competition with each other and by stimulating competition provide a guarantee, against high or unfair prices. The same rate, for example is quoted for all the different apple producers in Washington and Oregon to points near Chicago and the Atlantic coast; such rates are coming into use in the case of a few commodities in India also (the same rate is quoted for matches produced at different centres in the area surrounding Bombay by the G.I.P. and B.B.C.I. Railways for the purpose of equalising freight rates for the different competing producers). The Indian Tariff Board on cement was also aware of this handicap imposed by railway freight on factories situate far in the interior of the country, in the matter of competing at port centres. Where the demand for cement was particularly strong, when a number of competing concerns are seeking the same kind of advantage, a railway can, to a certain extent, settle their troubles and obtain the largest volume of traffic by quoting equal rates to all, regardless of distance.

Often one railway route is the strategic factor in a continuous route. If a railway pursues a purely individualistic policy, its receipts from the "through" or joint-rate ought to be higher than that of any of the others involved in the traffic movement. Again when two systems of railway are interlocked in a continuous route (example coal from Bengal to Bombay) to bring in raw material to a manufacturing plant, the second of this which actually delivers the raw material, may have the benefit of the outward movement of the manufactured product. Is it fair then that the entire benefit from the outward movement of the manufactured product should go to the second railway alone? Here it is that the enforcement of certain regulations regarding the distribution of such benefits by an institution from above, such as a National Transport Board or a Ministry of Communications would benefit the railway system as a whole.

Almost all our railways have surplus capacity and are hungry for traffic. Unhealthy competition between them would lead to only unnecessary use of the railway plant. As one writer puts it "the whole structure of railway rates in a country is like a spider's web and as delicate; touch it at one point and changes have to be made at a great many other points." Many

publicists, therefore, see the only satisfactory solution of the problem of transport, in the creation of a Transport Board which would coordinate the work of the different forms of transport. If some such institution is not created it would not be possible for our railways, now that they have ceased to be monopolies, in short-distance traffic, to explore the various methods for increasing revenue and stimulating traffic, indicated in this paper. This would seem to be a condition precedent. In his recent address to the Indian Railway Conference, Mr. H. N. Colam pointed out that the system of charging "what the traffic will bear" may have to be abandoned by railways, now that they were no longer monopolies. The remedy, if the present "creaming" of traffic by buses is permitted to continue, is for railways to charge long-distance traffic on the basis of cost of service. It must be remembered however, that in the case of long-distance traffic, railways are still in a monopolistic position and obviously the principle of charging what the traffic can bear will hold good for this portion of the traffic. Mr. Colam, cannot invoke the aid of the cost-of-service principle for that section of the traffic, in which competition has not yet penetrated. His threat, if executed, would cause far reaching changes or dislocation in the existing industrial structure. The fact is, when the principle of competition is retained intact, the coordination of such systems of Transport-Railways and road services, would turn out to be nearly insoluble in practice. Railway rates based on the principle of charging what the traffic can bear and road service rates based on cost, are not easily reconcilable. If the practice of differential charging, were extended to road services, one of the consequences would be, an extension of the use of private lorries, so dreaded by Mr. Colam as threatening railway revenue. If, on the other hand, railway rates are to be completely determined by cost of service, the movement of bulky traffic to distant parts of the country would be arrested.

We must beware of a danger into which Mr. Colam has fallen, of tracing all the fall in railway revenue in recent years, to road service. The present depression is one factor responsible for such a situation. Again, not all traffic that has come to the road services, is at the expense of railways; a large part of such traffic, has been induced by the opening of such services and if there has been any diversion of traffic, in this case it has been at the expense of the country cart. It must also be remembered that railways themselves benefit from certain road services, which function as feeder services. But nevertheless the fact of competition between the two services, has to be

admitted even in short distance, goods traffic. The range and intensity of such competition varies as between different parts of the country. It is not to any essential advantage in economic cost, but to the gross unfairness in the respective legal positions of the two services, that Mr. Colam traces, the "creaming" of traffic by road services, at the expense of railways. (The operating cost of one mile, in the case of a 3 to 5 ton lorry is $4\frac{1}{2}$ annas and minus the duty on petrol, 4 annas; whereas the cost of running a ton-mile seldom exceeds in the case of railways, 2 pies on an average.)

Equalization of the legal position of the two services and of the conditions, under which they operate, ought to satisfy Mr. Colam, as ensuring increase in revenue for railways. In fact, propagandists on behalf of railway interests have been clamouring for just this type of legislation, of which we have had numerous illustrations in the U.S.A., England, and the continent. But the difficulty is in enforcing such legislation, for whereas Railways, may be treated as a single organization, road services (including private lorries) cannot be so treated. The sinister tendency of such legislation (The Road Traffic Act of 1933 in England, and the Motor Carrier Act of 1935 in the U.S.A.) has been noticed by Mr. Bonavia as conferring monopoly rights on Railways. "Railways, he writes, will now be subject to the temptation to protect the value of their railway assets, by underemploying their road vehicles (*Vide Economics of Transport*, page 192.) But this situation need not necessarily develop. Such legislation on the other hand may make for cooperation between road and rail services, and may enable them to quote "through" rates for both goods and passenger traffic.

In the absence of an institution, like an All-India Transport Board, piecemeal attempts, at coordination "between road and rail services," would merely result in restriction of existing traffic facilities. Mr. Colam sets great store on adequate taxation of road services and he has a feeling that "private lorries" pay very little to the Exchequer, while being permitted to earn considerable revenue. Under the existing organization however, it is highly doubtful, if road services can be both fairly and adequately taxed at all. Should motor transport bear the entirety of overhead cost or should such economic cost be distributed between country carts and railways? (In case railways benefit from roads as feeder services to them.)

There is the additional question, whether taxation of road services should be uniform, as suggested by the Motor Industries

Association, or vary from province to province in view of differences in the cost of constructing road, in different parts of India.

An All-India 'Transport' Board, giving an impetus to the construction of new roads, running as far as possible, not parallel to, but transverse to railways, may afford a partial solution of the problem of road-rail competition, as widening the available area of competition. Even the private lorry, whose existence is so oppressive to Mr. Colam, can be brought under the jurisdiction of such a Board.

As Mr. Bonavia points out "while duplication of services is not in itself synonymous with economic waste, anything which tends to reduce traffic congestion and unnecessary road use should be seriously considered." If a pool of distributive transport, could be effected in conjunction with an overhaul of the despatch methods of retail organizations, valuable social economies, might be realized. "The advertising value of lettered vehicles might be preserved in a way that haulage contractors at present paint certain vehicles, when it is practicable to reserve them for the exclusive service of one trader."

CONCLUSION.

It seems to me that the ultimate financial stability of Indian Railways, is only partially guaranteed when retrenchment in expenditure is effected. In fact, certain types of retrenchment may have adverse effects on those industries whose prosperity is largely based on railway demand. On the other hand, such stability would seem to be closely bound up, with the creation of a Transport Board, to effect coordination between all forms of transport, including internal air services. What is necessary is the centralization of the ultimate power of regulation in only one body. This point has been emphasized by the Federal Coordinator in the United States "Under a system of separate commissions, each would tend to become a partisan of its particular form of transportation, and inconsistent policies would almost certainly develop." (Vide *Locklin's Economics of Transportation*, page 716.) Incidentally, it is the supreme merit of such a body that it would be able to adjust its rates from time to time to suit the changes conditioned by the trade Cycle (Vide *Appendix A*.)

Appendix A.

Many obvious criticisms as regards both principle and detail may be brought against some of the proposals.

Most general of all is the allegation that adjustment of rates and fares, to yield stability of a net revenue, in money causes undesirable disturbances to trade. To a large extent, the strength of such criticism is reduced, if we bear in mind that, even supposing the percentage increases and decreases to be in themselves relatively large, the degree to which they would affect the general level of trade, is still problematical. "The total effect would depend on the influence which the revisions, would have on the final price to the consumer, and this is not only a question of the proportionate variation of rates, but, of the proportion, which transportation costs bear to the total costs of production. Sherrington and Wood state that 'railway charges, must necessarily enter very largely into the selling price of the vast majority of consumption goods'. On the other hand, the Bureau of Railway Economics (U. S. A.) after investigation into a large number of agricultural commodities came to the conclusion, that 'freight charges, are a relatively small part of the prices of commodities even on long distances, and the commodity price fluctuations, caused by market conditions, are far greater, than any fluctuations in the cost of transport. It must however be admitted, bearing in mind, Indian conditions, in the case of low value bulky commodities, rail charges form an important item of the selling price. In the case of rice, (*Vide Special Officer's Report on Marketing of Rice in the Madras Presidency*) more than 1/3 of the price of a bag at Madras is accounted for by railway freight. Road services, have compelled our railways to reduce the rates, in some cases only on high-valued and small goods, without any alteration, in the case of the rates on 'heavies.'

It seems to me as in the case of a government public works programme for stabilizing employment conditions, the railways, should lower rates during periods of depression and raise them, when during periods of boom. Enlightened bank administrations also are realizing the necessity of adjusting rates upward during booms and downwards during depression periods. 'It is to be noted that the theory of raising rates in booms and lowering them in depressions, at the railways expense has had practical expression in the action of the Inter-state commerce commission under the Hoch-Smith Resolution, 1925, in the U. S. A. though this was really a one-sided affair used largely as a lever to reduce

rates on agricultural products between 1925 and 1929. After all, such a policy, would be free from the practical vices arising from increases of rates in the depression period. It must also be remembered that railway rates are not so stable, as we might imagine. Under the stress of the competition of motor services, many railways have reduced their rates. The two propositions that (1) railway rates during ordinary periods should be disturbed as seldom as possible for they constitute a delicate texture and (2) that during boom and depression periods, they must be adjusted (not, of course, in the manner in which railway orthodoxy would dictate) are not inconsistent. It is the differing circumstances of the different periods, that necessitate such a procedure.

SOME ASPECTS OF RAIL-ROAD COMPETITION

BY

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[In this paper I have discussed the problem of rail-road competition from three different points of view: (1) the clash of financial interests of the Central and Provincial Governments; (2) the rising motor industry and last though not the least (3) the interest and convenience of the public.]

It must be made clear at the outset that I have not dealt with the technical aspects of the Rail-Road Problem.

The recent statement of the Finance Member of the N.W.F.P. with reference to the Motor Vehicles Taxation Bill that "the object of the said Bill was to increase local resources and find money for beneficent schemes hitherto withheld"¹ raises a very important issue—the clash of the financial interests of the Federal and Provincial Governments.

Railways being mainly state-owned in India, the Central Government is concerned with the profit-yielding capacity of the railways and as such views with great apprehension the effect that the increasing competition of commercial motor vehicles has on the income of railways. This apprehension has, of late, been further aggravated as "the power of the Central Government to surrender a share of its revenues will in fact depend largely . . . on the extent to which the Railways move towards attaining a surplus."² On the other hand, the importance of good road communications in provinces with predominant agricultural interests need hardly be stressed. The rise and expansion of commercial motor industry as a necessary consequence, with better development and control of road transport by the Local Governments has created problems of a pressing nature which deserve careful considerations.

It is well-known that Railways are controlled by the Governor General-in-Council through the Railway Department of

¹ Speech of the Finance member, reported in "Advance" dated 18-11-36.

² Vide Sir Otto Niemey's Report, p. 12,

the Government of India under the provisions of the Indian Railways Act, while the control of the motor vehicles is a provincial reserved subject under item 33(E) Schedule 1, part II of the Devolution Rules, and is exercised by provincial rules under Section 11 of the Indian Motor Vehicles Act of 1914. The whole trouble of rail *vs.* road is due to this anomalous position and full economic results can never be achieved unless there is a co-ordination of different transport agencies. The revenues of the Provincial Governments are not affected by the loss of railway traffic. They are, on the contrary, considerably replenished and the Provincial Governments get thereby an opportunity "to find money for beneficent schemes." Besides, in an agricultural country, better prospects and consequently larger revenues will be forthcoming even under present circumstances without any immediate and far-reaching technical improvements in the art of agriculture, if only proper arrangements are made for marketing. But that is not possible unless there are good road communications. The Agricultural Commission very rightly remarked that "transportation is an integral part of marketing, and modern commercial development tends everywhere to enhance the value and importance of good road communication." Thus there is the additional stimulus to the Provincial Governments to improve the roads and give better facilities to commercial vehicular traffic. Moreover the provision of good communication apart from assisting the development of, and facilitating the decentralisation of industries, is the surest way of stimulating agricultural production and raising the standard of life in rural areas. All these would undoubtedly reflect on the revenues of the Provincial Governments, while unrestricted competition in goods traffic by road transport vehicles must prejudicially affect the entire structure of railway rate-making and dislocate the whole commercial structure involving the Central Government in loss of railway earnings. The great importance of railway finance to the centre and its significance in relation to the distribution of income-tax to the provinces are matters not to be ignored. It has been estimated that the diversion of railway traffic to road had been responsible for a loss of about 190 lakhs in 1932³ and is at present not far short of 3 crores. This is the condition of railway finance when the motor goods traffic is in its early stages. In future its operation will largely be "cream-skimming" leaving only those commodities for railways which are of the lower classifications. It has further been apprehended that the

use of Diesel bus or lorry with its cheaper operations will affect the railway earnings in a greater degree.

This question becomes all the more complex due to lack of accurate figures and the advocates of the motor industry claim that the loss of freight of the railways must invariably accompany a reduction in trade. They further claim that unable partly by force of circumstances to cut their coat according to their cloth and possibly unwilling to admit or correct the inefficiency and waste usually associated with monopolies, the Railways sought for a plausible excuse for the losses sustained and found a ready scapegoat in motor transport.

This is why I endeavoured to make a personal investigation into this matter in the city and port of Calcutta as goods traffic by roads appears to be wide spread with concentration on the approaches to large cities and main ports. The number of goods lorries, registered as such in Calcutta, has increased from 1625 in 1932 to 2517 in 1935. But this increase of about 60 per cent during these four years is no index of the lorries carrying goods from this port. Of these about 85 are engaged in this sort of haulage; and of these eightyfive only fourteen carry loads to Cawnpore, Delhi, Amritsar and Montgomery, with a transshipment at Sone East Bank. The remaining seventy confine their journey to Bengal and Bihar. The rest are employed in transport work from dock to mill and from station to mill or warehouse, etc., and as such are not in competition with Railways. The type of goods carried is not always the same. Tea, camphor, betelnut and dry cocoanut etc., mostly form the load to the Punjab and Delhi whereas woolen goods and dry fruits are brought on return journey. In addition to the above, turmeric and spices are carried to U. P. and ghee, mostly from Sikohabad and Aligarh, forms the traffic downwards. Behar appears to use mechanical road transport more frequently and in respect of large number of goods. Cotton piecegoods, toddy, sugar, iron goods especially iron pans, spices, sago, betelnut, dry cocoanuts and tea are carried to Patna, Gaya, Giridih, Hazaribagh, Ranchi, Purulia, Dhanbad, Jherria and neighbouring coal districts, while raw hides from almost all these places, Shellac from Ranchi, Chatra, Purulia Jhalda and Palamau, tobacco from Gaya and *bheligur* mostly from Aurangabad, mica from Kodarma and Giridhi are brought to Calcutta. I have annexed herewith a fare table which is enforced from the 15th of September, 1936, in respect of this traffic. Assuming, on an average, five tons against a registered laden weight of 3.32 tons per lorry, an over-weight of over 42 per cent, the overload being cent per cent, I find that

the daily haulage of goods amounts to about 105 tons on the further assumption that it takes four days for a goods lorry to complete the journey bothways. Working on the fare table, the average fare per ton of goods carried by motor transport comes to about Rs. 20 to Rs. 21 per ton which works out a freight income of a little over 7 lacs and 50 thousand per annum—a deterioration, though not very considerable in the earlier stages, is undoubtedly very much disquieting to railway finance from the loss of goods traffic which, it is estimated, yields 60 per cent of the total railway revenue. Over and above this, there is the loss from passenger traffic which has undoubtedly been much better organised.

Thus we see the chances of a continually growing deficit of railway finance are great if unrestricted competition by road transport vehicles is permitted. It may, however, be pointed out in this connexion that the development of motor transport has brought considerable business to the railways in the transport of petrol and to that extent neutralised the adverse effects of this competition.

From the table 'B' annexed herewith it will be seen that there is, on the other hand, the possibility of a very good earning of the Provincial Exchequers which can ill afford to lose any portion of it. There is, therefore, a great necessity for some sort of control to ensure the co-ordination of the two methods of transport. But "if road transport is to be regulated, then it is only fair," as is maintained by Mr. F. E. James in the Assembly, "that the task of a thorough overhaul of railway expenditure should be taken *pari passu*."⁴ And this has been also emphasised by Sir Otto Neimeyer in his Report. "I believe that both the early establishment of effective co-ordination between the various modes of transport and the thoroughgoing overhaul of Railway expenditure in itself are vital elements in the whole Provincial problem."⁵

Turning to the other two aspects, we find that the Motor Industry to-day has assumed an importance of no mean degree. Looked at from the view point of Central and Provincial revenues, it is the most productive of all the industries of the country both in respect of import duties, provincial and district taxation and last but by no means the least, the heavy duty and surcharge on petrol. Each vehicle is a constant source of revenue and India to-day is the highest taxed in the world as

⁴ *Vide* Legislative Assembly Debates, 1936., Vol. VI., No. 5.

⁵ The Report, p. 12.

regards the motor vehicle. Even during the years of depression from 1930 onwards, Motor revenues offer the only item of progressive large increases. It is estimated that, in special taxes alone, the Motor industry provided no less than ten crores and thirty lacs in 1935.

Next in regard to its capacity in finding employments for the children of the soil, this industry holds indeed a very high position. There were, on the 31st March 1935, about 40,000 lorries and buses all over India. If we assume that at least three persons are employed when one lorry or bus is allowed to ply, these will find employment directly for 1,200,000 and let us hope indirectly for another 10,000. If, in addition to these, we include motor cars including taxi cabs⁶ as also motor cycles, it is no exaggeration to say that this industry employs ten to fifteen times the above figure.

And lastly from the view point of public interest and convenience, it has been maintained that road transport scores over its competitors in convenience, economy, speed, reliability and the elimination of breakages. Besides, the importance of a motor van in an agricultural country for the conveyance of perishable goods cannot be denied. The transport requirements of dairy farmers, market gardeners, fruit growers, etc, are very exacting, since rapid, efficient and careful transit is absolutely essential. Unless fruit or vegetables can be brought to market in the minimum of time after picking, the "bloom" is lost and the produce in consequence will not obtain the best price.

In view of the importance which this industry holds in the economic and financial structure of our country, the question now before us is: How to regulate this transport agency consistently with the best interests of the country as a whole? It is an accepted theory that "the transportation machine cannot function with progressive efficiency part regulated, part unregulated: coordination of transportation agencies cannot reach its economic possibilities under this anomalous condition."⁷

6 No. of M. V. in Br. India on 31st March, 1935.

Motor cars including Taxi cabs	1,15,075
Motor cycles including shooters and autowheels	13,846
Heavy Motor vehicles (Lorries and Buses)	39,903

1,68,824

⁷ Co-ordination of Motor Transportation by Leo. J. Flynn, Quoted in Mitchell-Kirkness Report, p. 96.

This problem attracted the attention of the Government for a pretty long time and the Jayakar Committee investigated into certain aspects of this question. Later in 1933, the Rail-Road Conference passed resolutions to the effect that greater control should be established over public service and goods motor transport in the interests of public safety and convenience and restrictions should be imposed on vehicles to prevent wasteful competition. These resolutions were incorporated into the policy of the Transport Advisory Council in January 1935. During July last, there was a meeting of the Transport Advisory Council and the discussions thereof had been the immediate cause of a bill which was before the Indian Legislature in the Simla session to further amend the Indian Motor Vehicles Act, 1914. The important provisions of the Bill may be conveniently grouped under two heads. Under the first head come those which relate to the better regulation of motor transport in the interests of public safety and convenience. Under the second head come those which relate to the constitution and functions of machinery for closer control. Clause 4 of the Bill empowers the Local governments to make rules under which they will have power to limit the number of passengers carried in transport motor vehicles, to fix the maximum weight of such vehicles, to provide for their inspection, to establish authorised stations, to regulate the conduct of passengers, drivers and conductors, to limit the hours of duty of the drivers and lastly to require compulsory insurance including passenger and third party risks. The rule making powers under clause 3 empower to constitute transport authorities and where such authorities are constituted to make it illegal for motor transport vehicles to ply without first obtaining road service permits. This clause also defines the powers of transport authorities and makes it possible to (1) limit the number of vehicles generally, or (2) of any special class, in any specified area or route; (3) to issue road service permits to particular vehicles or service of vehicles, to modify those permits and to attach to them conditions as regards charges for the carriage of passenger and goods, the running of services to timetable and the like. Clause 5 confers power to make rules regulating powers, functions and procedure of transport authorities, appeals from their orders and other cognate matters.⁸

Let us now discuss how far these provisions would retard or develop this new industry in our country. With India's great distances and vast agricultural areas waiting to be opened

up and with the enormous potential revenues which might be expected to follow, it is naturally expected that Government would have adopted a policy of encouragement for an industry which is capable of providing such returns. But unfortunately here in India, the record is one of tax upon tax and restriction upon restriction. It will not be out of place to point out that in America the average annual tax per vehicle is Rs. 130, in England about Rs. 475 and in India Rs. 1000.⁹ In America vast sums are spent for the benefit of the industry, in England practically the whole of the tax is spent on roads and bridges whereas in India, the only sum specially earmarked for the benefit of the motor industry had been about 1¼ crores of rupees which was raised by a special additional tax for the express purpose of constructing, improving and maintaining roads for the benefit of the industry which provided the money. This has, however, been recently changed and new arrangements have been made for the future distribution of the Central Road Fund. The unspent balances held by the Provincial Governments are not to be withdrawn by the Government of India and future share allotments will be based as at present on petrol sales, but will be held by the Central Government to the credit of Local Governments. The Government of India reserve the right to transfer any sum from the credit account of any Local Government to the All-India Reserve if at any time they are satisfied that the balance at the credit of a Local Government is greatly in excess of the requirements of schemes sanctioned or expected to come up for sanction in near future. In regard to the use of the Central Road Fund two important principles have been enunciated: (a) not more than 25 per cent of the share of a Local Government shall be spent for the development of roads deemed by the Government of India to be competitive with railways and (b) not less than 25 per cent of the share of a Local Government shall be spent on feeder roads.¹⁰ Thus we find the industry is not only burdened with an ever increasing load of taxation, but is also faced with the prospect of a fund, raised for its benefit by special taxation on the industry itself, being administered in a manner definitely detrimental to its development.

Coming closer to the clauses of the Bill, we find that Provincial Governments already possess the majority of the powers that this Bill premises to confer and as such it can be maintained

⁹ Figures supplied to me by Mr. W. K. Battey, Secretary, The Motor Industries Association, Calcutta.

¹⁰ *Vide* The Concise Policy of the Transport Advisory Council.

that further legislation should be postponed until a committee be appointed to enquire into the possibilities of 'a thorough-going overhaul of Railway expenditure'. The requirement of compulsory insurance against passenger and third party risk is a vital thing which is not covered by the existing law. But in view of the present circumstances of the existing insurance companies which do this sort of business and of the ownership of motor buses and lorries, this ought not to be introduced just at the present moment. From table C it is found that owners owing two or more vehicles are extremely few and it would be a real hardship for those owner-driven motor vans unless competition among insurance companies bring down the rates or the Government want to eliminate individual owners altogether and create a sort of monopoly. The consequences of such a state of affairs may well be imagined. Besides, the insistence of this part of the bill would undoubtedly increase the fares and that would prejudicially affect the further development of the industry. And lastly as Sir Frank Noyce observes "there are practical difficulties in initiating a compulsory insurance scheme and, in particular, in regulating relations between the insurer, the insured and the third party."¹¹

Next the power to fix authorised stations for the regular taking up or setting down of passengers and goods by transport motor vehicles would destroy the distinctive feature of motor transport *viz.* door-to-door delivery. This power, if at all, should be confined to passenger carrying vehicles and even there, should not operate outside urban areas. Road transport is the only form of inland transport where door-to-door services can be operated without any special construction of sidings, wharves, terminals, etc. which would be essential to other forms of transport. The outstanding characteristic of motor transport is its flexibility and freedom. This flexibility of road transport is of great importance in country districts, for a road vehicle can stop anywhere, and can thus provide better facilities to farms, hamlets and villages. Many rural areas which cannot afford sufficient traffic to justify construction of a railway possess limited amount of traffic for a road motor. The Convener's Committee of Roxburghshire County Council observed long ago that "as between railway and mechanical road transport the committee consider that, as a general rule, development should proceed along the lines of increased and improved mechanical road

¹¹ *Vide* The Legislative Assembly Debates Vol. IV, No. 4.

transport".¹² In the more sparsely populated rural districts like ours the flexibility of road transport assumes an even greater importance because a motor van can be utilised on several routes. Such a service may be remunerative as well, as any one route by itself may not be able to provide sufficient traffic to keep the vehicle busy during the whole week. The rural motor van can thus provide services at a lower cost per passenger-mile than any other form of transport and it may be said that for rural services there exists no other practical alternative.

One word more and I have done. We know that the Railways in India are a very valuable property of the people, and must always be kept in a state of good repair. But we cannot forget that "the static condition of railway practice has, during many decades, been a result of the lack of competition" and that the rehabilitation of the railways should take place quite independently of other transport agencies under stress of whose competition "it has been proving itself capable of progress and fresh adjustment."¹³

TABLE A.

RATE LIST.

		(per md.)		Rs. as. p.			
Calcutta to Ranigange	..	0	5	0	for all goods.	} In case of cotton goods -/1/- extra.	
Asansol .. ..	..	0	6	6	.. ..	
Barakar .. ..	..	0	6	6	.. ..	
Sitarampur ..	..	0	6	6	.. ..	
Chirkunda ..	..	0	7	0	.. ..	
Jheria, Dhanbad, Kerkin, Katras ..	..	0	8	0	.. ..	
Isri .. ..	..	0	10	0	.. ..	
Sarya .. ..	..	0	12	0	.. ..	
Hazaribagh Town ..	..	1	0	0	cotton goods.		
Do. .. ..	..	0	14	0	for all other goods.		

¹² Quoted in Fenelon's *Economics of Road Transport*, p. 100.

¹³ *Vide A Survey of Motor Bus Transportation by Gadgil and Gogate.*

RATE LIST—(Contd.)

			Rs. as. p.				
Giridih	0	12	0	for all goods.
Ranchi	0	14	0	fruits.
Do.	0	12	0	potatoes.
Do.	0	11	0	for all other goods.
Sili	0	11	0	„ „
Jhalda	0	11	0	„ „
Purulia	0	11	0	„ „
Do.	0	10	0	
Do.	0	12	0	stationery.
Chas	0	12	0	for all goods
Gumla	1	0	0	„ „
Chaibassa	1	2	0	„ „
Balarampur	0	14	0	„ „
Gaya	0	14	0	„ „
Do.	0	12	0	stationery.
Bihar Sariff	1	2	0	for all goods.
Kodarma	0	14	0	„ „
Do.	0	12	0	iron goods.
Calcutta to Sergahti	0	12	0	for all goods
Chauparan	0	12	0	„ „
Aurangabad	1	0	0	„ „
Wizirganje	1	0	0	„ „
Chatra	0	14	0	„ „
Do.	0	12	0	iron and salt.

In case of
cotton goods
-/1/- extra.

In case of
cotton goods
-/1/- extra.

In case of
cotton goods
-/1/- extra.

In force from the 15th September, 1936.

TABLE B.

(Tax payable by a 23 Seater Bus.)

	Madras.	Bombay.	Behar & Orissa.	U. P.	C. P.	Punjab.	Assam.	Bengal.
Provincial Tax ..	805	424	400	288	184	44	..	120
Regulation Fee ..	5	4	..	..	..	30	5	10
Driving License..	3	2	3	6	4	6	3	6
D. B. Fee ..	600	..	..	..	..	..	50	..
Drivers' permit ..	..	6	..	..	2	..	500*	..
Municipal Tax ..	60	60	..	..	36	48	50	..
Owners' permit ..	10	3	..	..	..	..	..	..
Inspection Fee ..	50	..	38	..	12	..	10	..
Car stand Fee ..	..	..	..	..	..	24	..	..
TOTAL ..	1,533	499	441	294	238	152	618	136

* Varies for different routes from Rs. 50 to Rs. 3,000.

(Vide *Statesman Motor Supplement*, June 24, 1936.)

TABLE C.

(In regard to those regd. in Calcutta.)

Number of owners owning.

Taxi.	1 Vehicle	2 Vehicles	3 to 10 Vehicles	11 & more
(Calcutta not available)	221	13	3	0
Motor Buses.				
(Calcutta not available)	203	50	61	
Lorries.				
(Calcutta not available)	7	6	1	0
Motor Bus ..	621		12	

(In six districts in Bombay Presidency.)

(Vide *A Survey of Motor Bus Transport—Cadgil & Cogate.*)

Conference Proceedings

INAUGURAL ADDRESS

BY

P. MASON, Esq., I.C.S.,

Commissioner of Agra Division.

Ladies and Gentlemen,

First let me thank you for your kindness in asking me to declare your Conference open. I need hardly say how gratified I was by Prof. Puxley's kind invitation. At the same time I am afraid it may have fallen to me by chance or false pretences, as it was addressed originally to my predecessor. Mr. W. C. Dible, who is a gentleman of high academic attainments: in fact I happen to know that when he took the Final Honour School of Modern History at Oxford, he obtained an alpha or first class in every one of the 13 papers for which he sat, whereas I, alas, in the same school had the greatest difficulty in collecting six! However I *can* say that one of my six was for Political Economy, and I remember to this day how my interest in the economic and industrial side of history was first aroused by a little green book called *Landmarks in Industrial History* by Townsend Warner. Thereafter I was always interested in the economic aspects of my work, so that I may claim at least some small association, however remote, with the great science of Economics. Unfortunately, as many of you know, the average administrator or bureaucrat, of which common type I am one, is so over-burdened with masses of routine work and so enmeshed in coil after coil of red-tape that he has no leisure for the pursuit of letters, and I am not one of the select few who have risen superior to these handicaps and been able to pursue their classical, literary or economic studies as hobbies in after life. On the contrary I have to confess that such scanty leisure as has fallen to my lot has been almost entirely absorbed by *shikar* and the game of bridge.

2.—However no administrator can be so engrossed or myopic as not to see that he and his fellows are creating vast problems to answer which, if answerable indeed they be, he must turn for help to the Economist. It was therefore with some interest that I looked at the subjects which you are to discuss at your Conference. The list is, I see, headed by Income Tax, than which there can be no weightier problem, at any rate for those of us who groan beneath its burden. Next you have Transport, with

particular reference to Road and Rail Competition. This too is a problem of which I for one am grievously aware, as monthly committees to control Road Transport have just added a new terror to the lives of Commissioners and District Magistrates. However one remedy for the present deplorable condition of our Indian railways is apparently to be found in a solution of this competition between road and railway, at which I trust we shall with your help be able to arrive. Tariff Policy is a matter of world interest, and I would not venture the most airy comment on such a colossal problem, beyond saying that the conviction of the merits of free trade which I finally acquired on concluding my University studies with Prof. Bastable's classical work on the Balance of Trade has since been rudely shaken by the passage of events, though I see more clearly than ever the drawbacks of the opposite extreme in Australia and the United States, and trust that your coming discussions will hold out some hope of a safe path between the two. Your last subject is recent Exchange Developments and the Future of International Trade. But Exchange and Currency problems are so highly technical, and my intelligence so very ordinary, that I must confess I have never been able to obtain even the most rudimentary grasp of the Indian Currency system as manipulated by the Government of India and the Secretary of State. It is with your penultimate subject, Measurement of National Income in India, that we approach what has always seemed to me, from an administrator's point of view, the most urgent and difficult of India's economic problems. The question of national income is indissolubly linked with that of population, and it is here that Indian administrators have, I think, upset what some people call the balance of nature. We have entirely eliminated civil war; we have almost eliminated famine; we can also now cope to a large extent with epidemics, our last real defeat being the influenza epidemic of 1920-21. For instance, the cholera which formerly ran through the length and breadth of northern India from its focus in the annual *mela* at Hardwar is now under almost complete control, and constantly I receive reports of virulent little local outbreaks of small-pox, plague and cholera, which are completely checked by the prophylactic measures of the Public Health Department working in conjunction with the District Officers. Could we but find a practicable remedy for the general scourge of malaria, which throws a large percentage of our agricultural population out of work at the most important period of the cultivator's year, we should, I think, be able to rest somewhat upon our laurels. At any rate, the terrible devastation of human life still wrought in

countries like China by war and pestilence, famine and flood, are more or less things of the past for India. The result of course is that the population index now surges up by something like two crores in each decade. In the face of this our constructive efforts, such as the canalization of the Punjab, which has turned lakhs of acres of barren land into smiling wheat-fields, and the great Sarda Canal project in this Province, are but drops in the bucket, and instead of providing full meals for those who formerly went hungry seem to lead only to increase of population. It does seem to me entirely wrong that a creature of man's attainments should depend for the measure of his increase upon the margin of subsistence, with all the hardship and deterioration which it involves, or such crude panaceas as birth control and large scale disasters to human life. Surely there should be a generous margin within which population can be adjusted satisfactorily to resources without such suffering to the individual? Here then is another question to which only you Economists can find an answer.

3.—Well, gentlemen, I must not afflict you further with my childish remarks or stand longer between you and the welcome which the Chairman of the Reception Committee is writing to give you, and still more the treat which I am sure awaits you in the Address of your President, Dr. John Matthai, the Director-General of Commercial Intelligence and Statistics. I have only ventured to say what I have in the hope that it may give you some idea of how the more ignorant laymen, immersed in their own labours, are apt to view the subject of political economy, and I now have very great pleasure in declaring your Conference open.

WELCOME ADDRESS

BY

PANDIT RAJNATH KUNZRU

Pandit Rajnath Kunzru, Chairman of the Reception Committee then welcomed the delegates in a suitable speech. In doing so, he said, "We are now on the threshold of far reaching constitutional changes, but I for one am strongly inclined to think that no constitution will be able to take the country forward unless adequate means are devised for the betterment of the economic condition of the masses and for the conservation and enhancement of the national wealth. Fortunately for us we have at present a Viceroy, who during the very first month of his Viceroyalty has given ample indications of his deep and sincere desire to help the industrial and agricultural progress of India. Lord Linlithgow's solicitude for the welfare of the masses and the personal and marked interest which His Excellency has been evincing in all matters directed to improve rural conditions has made a deep impression on the country, and we earnestly hope that by the time His Excellency lays down the reins of his exalted office some at least of the economic evils that India is now heir to will be well on their way to a solution. Signs are not wanting at present of an industrial and agricultural upheaval in the near future, and economists are the persons best qualified to suggest on what lines progress should proceed and how it would be possible for India to avoid dangerous pitfalls and satisfactorily solve her economic problems. The country needs at present something like a new movement or School of Economic Study, for students and enquirers, whose main object should be the study of Economics on Indian lines, for it is now generally recognised that what are known as 'Economic Laws' are for the most part generalizations about the Economic Phenomena and industrial structure of Europe, and that these generalizations do not necessarily hold good in the case of India. Statistical survey of Indian villages is urgently needed if we really want to effect any improvement in their condition."

Pandit Kunzru referred also to the problem of educated unemployment and the serious proportions which it had assumed. Turning to the subjects which had been selected for discussion at the Conference, he said that they related to a number of problems

of outstanding economic importance to India. " The authoritative views of a body like the Indian Economic Conference on the Indian Income-tax System, the Tariff Policy in India, the measurement of the National Income, the Rail and Road competition and River Navigation, the recent Exchange developments and the future of International Trade with particular reference to Indian Trade and Industries, are bound to carry great weight with the public and influence the policy of the Central and Provincial Governments in regard to these matters."

PRESIDENTIAL ADDRESS

The study of Economics has made remarkable progress in India in recent years. The provision made by Universities and Colleges throughout the country for teaching and research in Economics has increased greatly since a generation ago. On the Arts side there is perhaps hardly a subject taught in Indian colleges today which commands greater popularity and interest among our students; and the place assigned to it in our curricula has assumed correspondingly greater importance. In some Universities the subject is now considered to be of sufficient scope and cultural value to justify the provision of a separate degree. In others where it has been combined for degree purposes with older studies, it now fills a larger and in some cases a predominant place. Meanwhile the demand for more and better equipped teachers and the opportunities for increased employment in business and Government Service have led to a marked increase in the number of Indian students who complete their Economic studies in foreign universities. A visitor, for example, to the London School of Economics can hardly help being struck with the large proportion of Indians among the pupils attending its classes. As a necessary concomitant of this, there has also been a large increase in the output of literature written by Indian scholars on Economic subjects. Judged by concrete standards, the subject has undoubtedly come into its own in this country.

The extension of facilities provided in India for the study of Economics and the increased interest which it has awakened reflect a similar movement in other countries. Public life in most countries centres now so largely round Economic controversies that not merely has the general interest in the subject been quickened but the need for patient analysis and balanced judgment in the investigation of economic problems has become greater. In many respects in this matter India has kept pace with the general current of progress. But if the true test of the progress of scientific studies is the extent to which original thinking is stimulated and fresh contributions are made to knowledge, it is to be admitted that we in India have lagged considerably behind other countries.

The Economic literature produced so far in India may be said to fall largely into two categories—descriptive and propagandist. Most works written by Indian scholars belong to the former group and are mainly descriptive accounts of the

history and working of economic institutions in India. The work done in this field has undoubtedly been of value in bringing to light the concrete facts which form the background of Indian Economics. But such work makes no perceptible contribution to the development of the fundamental theories which constitute the intellectual frame work of the subject. More recently another class of writing has made its appearance which shows signs of acquiring considerable popularity among Indian scholars. The subjects dealt with in these writings are of a topical nature relating generally to matters of public controversy. These writings have a certain value in so far as they contribute to public discussion of economic questions a higher level of specialised knowledge and thought. But they suffer from what from a scientific point of view is the fatal defect of topical controversies—namely, that they tend to be one-sided both in the reasoning adopted and in the selection of the materials on which the reasoning is based, and further, that a positive conclusion is considered in such controversies to be of greater importance than a careful analysis of the problem involved—neither of which are conducive to the growth of a scientific or disciplined outlook.

It is somewhat odd, in view of the natural aptitude of the people for analytical reasoning, that hitherto so little impression has been made by our scholars on the intellectual apparatus which forms the core of the science of Economics. Economic conditions are not the same in all countries nor are the immediate practical problems by which they are faced. But these differences do not invalidate the central theory which forms the essence of the science. Unless our students can acquire a firmer grasp of the technique and method of Economic analysis and can help in throwing fresh light on it by their work, the study of Economics can hardly be said to have justified itself. For it will be admitted by those who have given thought to the matter that there is no part of Economics in which there is room for greater and more sustained intellectual effort than the examination of the central theoretical structure of the subject. The lines of work pursued by Indian scholars hitherto have been those which involve less strenuous mental application and are intrinsically of less importance.

It may be observed that since the introduction of the present system of education in India, the chief branches of analytical study in which Indian scholars have made contributions of universal value to human knowledge are mathematics and the natural sciences, what may be called the objective sciences. It is true that in philosophy we have in recent years produced

distinguished scholars whose writings have achieved a high degree of reputation. It is, however, no disparagement of their work to say that the writings of these scholars have in the main consisted of interpretations in current terms of ancient Indian thought rather than the breaking of new ground in philosophical investigation. It is worth while enquiring whether the employment of a foreign medium of instruction in our educational system is having the effect of hampering Indian scholars in those lines of study in which the power of thought and expression in clear, accurate and precise terms is of particular importance. The language of the objective sciences consists of symbols and modes of expression which in the main are standardised and international. Further, the subject-matter dealt with in these sciences being of an objective character, the medium of thought and expression is not nearly so important as in those sciences which deal with the inner workings of the human mind. Modern Economic theory deals with the mental reactions of human beings to the constantly recurring problem of relating means to ends in a world of limited resources. The language in terms of which thinking and writing are done is a factor of the utmost importance in a subject which deals with the mental processes of human beings. It is a matter for serious consideration whether a language which is acquired but not imbibed, however fluently and elegantly handled, can ever be an adequate instrument for the accurate expression of the subtler forms of thought.

The beginnings of the organised study of Economics in India have coincided with the growth of the national movement in its more active phases. Among the influences which have in recent years helped to stimulate interest in Economic studies, there is none more important than the urge to economic development which nationalism has brought with it. It is natural that a movement which inspires so strong a sentiment of common purpose and desire of service should enlist the sympathy of those who are interested in improving the economic welfare of the people. For it is obvious to every one who has attempted the task that except by voluntary collective effort, no perceptible improvement in economic conditions can be realised in this country; and for undertaking such collective effort in a spirit of service, there could in the present conditions be no stronger motive than that provided by the national movement. It is therefore easy to understand the somewhat rigid national outlook which is so prevalent a feature of Indian Economic writings. But such an outlook carries with it an inherent danger which students of Economics would do well to guard against. In a

country which is passing through a stage of unfulfilled nationalism, public controversies are apt to be tinged with an emotional fervour which is relatively rare in countries with settled political traditions. Since Economists fill necessarily an important place in public controversies in these days, their discussion undoubtedly suffers by the fact that it is carried on in an atmosphere so ill-suited to clear analysis and balanced judgment. In this difficult situation, a special responsibility rests upon students of Economics—to search for truth shunning partisan controversies and to follow wherever the truth leads, not to be deflected either by popular applause or official patronage but to maintain a straight course believing that nothing matters in the end but truth. One of the greatest achievements of modern Economic analysis is the discovery that there is a fundamental unity which underlies the various activities of man's Economic life. To grasp this principle of unity and to relate to it individual problems as they arise is the surest means of arriving at the truth and is therefore the allotted task of the student.

The greatest difficulty which presents itself to the Indian student in appreciating Economic theory is that the setting of facts in which it is presented in English text-books bears little apparent relation to the conditions of Indian life. To most Indian students it requires a drastic effort of imagination to picture the kind of economic organisation with reference to which the so-called laws of Economics are deduced and illustrated. The background of modern Economic treatises consists of a highly industrialised society knit together by a complex commercial and financial organisation. To this background, outside of two or three of the larger industrial centres in India, it is impossible for an Indian student to conceive of a parallel organisation in his own country. The result is that for majority of our students the study of Economic theory is from the beginning invested with a sense of unreality which prevents the growth of a spontaneous and living interest in the subject. When no real interest is awakened in the study of the theoretical foundations of the Science, it is natural both for teacher and student to seek an outlet for their intellectual energy and their interest in Economics in an accumulation of un-coordinated facts and in the pursuit of journalistic disputes.

There is a prevailing impression that modern Economic theory as evolved in Western countries has little application to the mediæval type of organisation which still prevails over the greater part of India. Such an impression is based on an erroneous estimate of the nature of Economic science. Economic

laws do not represent dogmas or positive conclusions but are essentially a method of analysis—an intellectual apparatus for determining the manner in which human beings react to economic conditions. The method involves two processes: First, the isolation of certain economic conditions from others; and secondly, the assumption of certain fundamental human motives and instincts. The provision implied in Economic laws that other conditions remain the same may represent a wider range of elimination in certain societies than in others. But this means only that the final truth is more difficult to arrive at in such societies. It does not mean that the tendency as disclosed in the given conditions is not a useful, indeed an essential, first step for the further analysis required in such cases.

The human motives and instincts which are assumed in Economic laws are generally summed up by the term, competition. That in India custom and not competition is the determinant factor is the objection which critics have generally urged against the applicability of Economic laws to India. Marshall once replied to this criticism in words which are still worth quoting—

“It is frequently said that Economists have assigned too much influence to the action of competition (or as I prefer to call it the equilibration of measurable motives) in backward countries. I am gradually drifting to the opinion that in many cases too little force has been attributed to it, but that a mistake has been made in assuming that it would take the same outward form as with us, and that our own method of dealing with it could be applied unaltered to backward countries. We are able to cross-examine the facts of modern India; and I believe that our Science working on these facts will gradually produce a solvent which will explain much that is now unintelligible in mediæval economic history.”

(Inaugural Lecture, 1885.)

The truth is not that Economic laws are inoperative in India but that over the greater part of the country the *form* and *pace* of their operation are different from those in countries which are more advanced economically. From the point of view of rendering Economics a live study in India, the greatest need today is for books by Indian scholars examining and illustrating the fundamental theory of the Science with reference to the facts of Indian life. It is probably true that so far no really competent

work of this kind has been produced. The so-called books on Indian Economics which are now placed in the hands of our students are almost invariably digests of official publications dealing with the historical and administrative aspects of Indian economic problems. These books provide a great deal of information but they afford little intellectual discipline. Unless the omission is repaired, Economics will remain a lifeless and barren study in India.

The need for careful and systematic thinking in Economic matters has never been greater in India than now. To the inequalities of a feudal economy have been added in recent years those of a growing industrial capitalism; and these have been further accentuated by the increase in middle class unemployment and the disproportionate fall in agricultural prices which have followed the general depression. Meanwhile education is spreading and so also are political consciousness and the power of the franchise. The accentuation of economic inequalities at a time when education and political consciousness are becoming more widely diffused constitutes a situation which is not without danger to the orderly growth of national life. Economic planning is a much abused term; and in this as in other countries it has provided material for much fruitless controversy by its quite unnecessary association with the idea of State action. But if by planning is meant cooperative thinking guided by sound principles and directed to well-defined ends, there never was a greater call for it than now. Even if its results measured by concrete tests amounted to little, its psychological value as a corrective to impulsive action should commend it to thoughtful persons.

DISCUSSION ON INCOME-TAX IN INDIA

1. Dr. R. K. Mukerji. (Lucknow):—There are two special reasons why the discussion of the agricultural income should be taken into consideration in discussing the total income-Tax structure of the country. One has been very frequently expressed by speakers. It is this system of assessment of agricultural income which alone can correct the balance of the present tax system. Another fundamental consideration is that 80 per cent of the total aggregate income of the whole country has recently been estimated as coming from agriculture, and consequently the case for a revision of tax system, in so far as we can derive revenue from agriculture, should be the first consideration. I would like to suggest for your consideration that perhaps it would be more practicable to find out the exemption level, in other words, I would like to express the need of exemption. Now, with an economic cultivation unit giving us an exemption level, we should have a progressive system of taxation of agricultural incomes.

I would like to say that much more important is the equalisation of products on economic holdings, and I plead that we should have certain general principles and rules such as those which have been adopted by the C. P. Land Revenue amendments. We all know that reductions have been made in the system of land revenue. It should be so fixed that it should never turn upon the necessities of life in a peasant family. There should be enough margin for dry years and also for deterioration of agricultural capital including the live stock, natural in an enterprise like the agricultural. The progressive system of agricultural income should be adjusted more carefully according to the application of the land tenure, as it has been developed in different districts of Bengal. Then there are men who should be taxed on a higher scale.

I think that all provinces should come up to a standard which has been reached in a large measure before the taxation of tenants can adequately be decided upon. It is not merely economics which would decide the agricultural assessment but it would depend upon the care of the individual, and on the equity of the tax system in a province, but more will also depend upon the benefit of the social structure of the village derived from the class of people having interest in cultivation, and who are to be taxed.

2. Mr. E. H. Solomon remarked that perhaps the most necessary reform was in administration, judging from the amount of evasion both legal and illegal. Perhaps the most important single step that might be taken in this direction would be better supervision and training of the "scouts" of the department whose business it was to discover persons liable to tax. With better prospects for the really efficient among this grade, he felt that the extent of evasion might be reduced. As regards the incidence of income-tax, for a married man with three children this was higher in India than in Britain on incomes up to Rs. 10,000 per annum. Notwithstanding, he was not in favour of following British practice by differentiating between earned and unearned incomes and granting exemptions for a wife and children, on account of the extra work this would throw on the department and the loss in revenue it would cause. Alleviation of the burden on the honest taxpayer would have to await improvement in revenues through better administration.

3. Prof. B. G. Bhatnagar:—Agricultural tax in India is derived in a number of ways. We can take the country as a whole in considering the Taxation Policy. There are some Zamindars in Bengal whose income is more than Rs. 2,000 and then there are cases in U.P., Punjab and C.P. of some who have the incomes varying from Rs. 5 to Rs. 100 per annum. We must face the problem of agricultural income in the provinces of Madras and Bombay so that, while deciding on a policy, we can really have one general policy for the country as a whole. If we take the case of a big Zamindar, it is a very clear case for taxing income. It is the duty of the receiver of the income to contribute towards the state in order to meet the deficiency of others. We are living in a state where tendency is for more and more taxation. As the state is being called upon to help the condition of poorer classes of people, big Zamindars should be taxed by the state. When one invests money in Zamindari the revenue has to be considered which is to be paid on it. We can have some sort of parallel between British and Indian taxation. If land revenue is abolished it will mean a great loss to the Government. Therefore we must establish a flat rate of taxes on the basis of acreage. Extra taxes should be levied by the local and district Boards.

4. Prof. C. N. Vakil:—I would like to point out that Incomes derived in India, but received outside say, in England, are exempted from the Indian Income Tax. They are, however, liable to Income-Tax in England. We should not allow these exemptions, in which event it would be a case of double tax.

The British Treasury would thus be required to give relief to the parties concerned. The exemption by us therefore means that the British Treasury is having a certain large gain at our cost.

5. Prof. K. B. Madhava:—Great attention is naturally given to cases where evasion, or underassessment, takes place. There are circumstances however were, through mistaken conception of profit making, the opposite is taking place; particularly in the assessment of the so-called surplus of life assurance companies. In England the basis is generally interest earnings less expenses, but for some reason, the basis adopted in India is to assess the surplus that is brought out by an actuarial valuation. By this means the extra premiums that policyholders deliberately and voluntarily pay in order to receive them back as “profits” are assessed for tax, and this obviously would have been avoided if they chose to keep their “profits” in their own pockets. As both the Income-tax Act and the Life Assurance Act are now under consideration of the Government, this is an opportune time for remedying this defect. Further with the increasing attention now being paid towards socialism the time seems to be ripe for making in some way distinction between earned and unearned incomes. Complaints are made for the lack of provision to offset gains in any year with losses in the immediately succeeding years. Perhaps a twelve-month is not the proper unit of period upon which to base assessment, and having regard to our belief in a trade cycle, the whole of this period may be a suitable unit, but this will raise practical difficulties in administration.

6. Mr. M. K. Muniswami, Annamalai University:—Speaking against the proposed taxation of agricultural incomes, he said that: It was a clear case of double taxation. When a man buys land he has to consider the revenue which has to be paid on that land, so that if the income from this land is to be taxed, this will mean a double taxation. He suggested that we should inaugurate other kinds of taxation such as on jewellery, furniture and other types of property.

7. Prof. V. G. Kale, Poona:—Referring to the tax on Agricultural income, he said that it should be as equitable as possible. Large incomes derived from agriculture go free but the man who has land is already paying a land revenue and should he be taxed on the income of the land also? All land is taxed and half of the income from land is spent on land. Would it be fair to expect another tax on the income of the land? If land revenue is to be assessed on principles other than the present,

as has been suggested we will have to consider the difficulties which the Provincial Governments will have to face. In Bombay, out of 14 crores, 4 crores come from land. Land revenue is pressing very heavily on small land-holders. Naturally in the case of big landlords equity of taxation may be considered. Double taxation is not justified. We may appeal to the public, perhaps, for a fair opinion.

8. Prof. H. R. Batheja:—I agree with Mr. Kale in thinking that the tendency of modern Indian politics is not to increase the burdens on land but to decrease them. This tendency will become still more pronounced in the future under new constitution which has given a large power to the landed classes. But the mere unwillingness of a particular class of persons to pay a tax is no valid argument against its justice, or equity. I am therefore not opposed to the tax on agricultural incomes in principle. Nor can I sympathise with Prof. Kale's other argument against it that the agricultural classes having paid one tax in the shape of land revenue, should not be called upon to bear another by way of income-tax. It seems to me this line of argument shows some confusion of thought. House property owners in towns are not exempted from income-tax after they have paid a house tax and other municipal taxes and there is no reason why agricultural property owners should be treated differently. Let us not forget that while the tax on land is a tax on a thing, income-tax is a tax on persons and as such falls only on those who have an income to be taxed.

While, however, conceding in principle the argument for a tax on agricultural incomes, I have some doubts about its expediency. The administrative difficulties of such a tax are considerable. If an exemption limit of Rs. 2000 is accepted as previous speakers have urged, the yield is not likely to be so great as is imagined since there are very few persons who have an annual agricultural income of more than that sum. No reliable estimate has yet been made as to what the tax will fetch in each province. If there is a great deal of rack-renting as is evident from the existence of many illegal feudal dues such as motor-tax, marriage-tax which continue to be paid in some parts of the country owing to the intense pressure of population on the soil, there is a grave danger that the tax on agricultural incomes will be passed on to the rack-rented tenants. This will create considerable hardships for a class of persons who are already bearing land burdens of their own and those passed on to them by the landlord or the State. The burden of land revenue

is heavy or light according as you treat it as rent or a tax. I am inclined to regard it as a heavy tax which has become heavier with the fall of prices. It is further capable of being shifted in many cases owing to the absence of alternative occupations for the mass of cultivators. If this line of reasoning is correct, I should not like to add another transferable burden of an income-tax until the first burden has been substantially reduced. When that is done as is very likely under the new legislatures, then alone will it be desirable to impose the contemplated tax on agricultural incomes.

9. Dr. V. K. R. V. Rao thought that the discussion on the subject of double income-tax relief had revealed a slight misunderstanding of his paper. It was his fundamental position that all relief from double income-tax given by a state should be confined to its own nationals; and that where relief was sought to be extended to the nationals of another country on the ground of reciprocity, it should be permitted only when the gains obtained by the nationals of the two countries were of a *comparable magnitude*. In the case of the existing arrangements for double income-tax relief between India and Great Britain, it was obvious that the amount of relief obtained by British investors was far larger than that obtained by Indian investors; and moreover, as grant of relief by Great Britain was not conditional upon similar action by the Indian Government, British investors in Indian concerns would not feel the full weight of the Indian income-tax even if no relief was given by the Indian Government.

There was one further anomaly which he wanted to emphasize: The Indian Supertax on companies is really in the nature of a corporation tax; but as it was included in the income-tax system of the country, it was added on to the income-tax paid by British companies in India for purposes of calculating double income-tax relief. While the British corporation tax was not so included, with the result that the Indian rate of tax on companies was considerably higher than half the British rate and the burden on the Indian Exchequer became correspondingly heavier. In fact, more than 90 per cent of the amount paid by way of double income-tax relief by the Indian Government was on account of companies; and this could easily be avoided if the Indian Government insisted on not including the supertax on companies in the incidence of income-tax or alternatively if the British Corporation tax was also included in the incidence of the British Income-tax for the purpose of calculating double income-tax relief.

10. Mr. K. C. Ramakrishnan, in replying to the discussion on his paper on *Taxation of Agricultural Incomes*, pointed out the difficulty of defining an economic holding, below which it was urged that no land tax should be levied, and also adverted to the fear of 'fractionalisation' of land that Dr. Radhakamal had himself expressed if such an exception were laid down. Madras was fortunate in its freedom from development of a board of intermediate tenure-holders found in other provinces. The objection to an income-tax on the score that its incidence would fall on tenants was not generally valid; there was no redemption for tenants who would allow themselves to be exploited in every way. The argument against double taxation, imposition of an income-tax over and above the land revenue even if the latter were reduced, could be advanced against the tax systems of several progressive countries, which had even triple taxation of land by Imperial, Provincial and Local governments. The apprehension that imposition of an income-tax on land would arrest further investments in land need not be an argument against such a tax. For one thing investments were seldom on improvement of land, but were merely purchases of the right to receive rents. It was indeed better that funds were diverted from agricultural into industrial channels; if an agricultural income-tax would do this, it would be a blessing. Prof. V. G. Kale's doubts whether the Provincial Legislatures, constituted as they were of big landholders, would be amenable to the levy of such progressive tax on land incomes could not hold good of the reformed legislative assemblies elections to which progressive parties had resolved to contest. The fear of the advocates of reform was rather that the Governments in their anxiety to protect the existing order might throw a damper on the enthusiasm of reformers who might launch on a policy of progressive taxation.

TARIFF POLICY

1st January, 1937. Morning Session.

1. Dr. A. Nader. (Agra University):—Dr. Nader, referring to the papers read said that the argument from analogy made use of by some to substantiate their theses was not very happy. The day before by the same argument they wanted to draw the noose round the neck of agriculture tighter. It was thought that the Indian agricultural incomes ought to be taxed because the English agricultural incomes were taxed. The backgrounds in both the countries were quite different. The British agriculture, unlike the Indian counterpart, is a very prosperous one. It was therefore worthwhile to consider whether the incomes concerned could not be better left untouched in the hands of the agricultural interest, until we were sure that the tax could be sent back to its source in some shape or other. Again on the score of the same argument it was suggested to widen and give a loose interpretation to the policy of discriminating protection. Here again the British conditions are quite different from those of India. British manufactures mostly depend on the imported raw materials. Even the food of their wage earners had to be imported from abroad and they would be hard hit by the retaliatory tariffs. Therefore the Britishers had to think twice before they advocate a policy of protection however they might modify it. They could not long rely on imperial preference. In India the case is otherwise. Our self-sufficiency and our superior advantage in raw materials give us a commanding position in major industries. We cannot afford to cast it away in order to get our raw material for our match industry. We can well afford to get raw materials for our minor industries even at a higher rate provided we can reap benefits more than what we lose from the consumption of raw materials in our home industries or by the export. He would therefore advocate a policy of discriminating protection still making allowance for our foreign trade and international commitments.

As to the Tariff Board, he said, that in spite of the excellent reforms advocated by Prof. Vakil in its constitution, it will still be weak on account of a defect elsewhere. The consciousness of not being able to discriminate in favour of its own nationals

with reference to countries with which most of her trade is concerned is enough to render her impotent.

2. Dr. B. N. Kaul:—In the papers that have been read on the subject and in the subsequent discussion the opinion has been generally expressed that any reduction of tariff duties will not be desirable. This opinion is based on the belief that a reduction of duties will be injurious to the development of industries in this country. All tariff duties in India have not, however, been imposed for protecting indigenous industries. There are four distinct elements in our tariff system,—(1) Revenue duties, (2) Protective duties, (3) Preferential duties for certain countries, and (4) Quota system in a modified form introduced by the Indo-Japanese Trade Agreement. It will help clarity of thought if each of these four sections of the tariff system is considered separately.

Revenue duties have increased enormously during the last fifteen or twenty years. It is a well known fact that indirect taxes are regressive in their incidence, and they should be avoided as far as possible in an equitable tax-system. There is therefore a strong case for the reduction of revenue duties. The argument on the basis of protection of industries does not apply to these duties. The only consideration which stands in the way is that a large percentage of the revenue of the Government of India is derived from this source and unless some alternative method of raising revenue is found they cannot be either reduced or done away with. An attempt should be made to substitute these duties by additional direct taxes, except in the case of those articles of luxury the duty on which is not regressive. Duties have also been pitched at such high rates that a reduction of the rate might increase the revenue rather than decrease it.

As regards protective duties, they are imposed definitely with the object of promoting certain industries and a reduction in their scale is obviously undesirable. They have, however, not always been successful in putting the industries concerned on sound footing. Two prominent examples of the failure of the protective duties are the sugar and the cotton industries. The former has developed very rapidly behind the tariff wall but on account of the absence of national planning and co-ordination between different units has worked itself up into a very precarious condition. Cotton industry in spite of natural advantages and a heavy protective duty is unable to compete with foreign goods on account of antiquated and wasteful methods of production and absence of rationalization. I think in all

cases in which it is decided to give protection to an industry, it is desirable that the Government should go a step further and should accept the responsibility of planned development and ensure internal and external rationalization of the industry. This is an obligation to the consumers who pay for the development of the industry but who may find in the absence of these measures that their sacrifice has not succeeded beyond enriching the pockets of the owners of the industry.

Preferential duties and suitable modifications of the quota system should not prove harmful so long as they fit in with the general policy of protecting certain industries and so long as in their working the points raised in the two previous paragraphs are not ignored.

3. Prof. D. R. Gadgil of Poona after commenting on some of the points in Prof. Adarkar's paper said:—

India cannot afford the extravagant methods of the U.S.A. in giving protection to its industries. The imposition of tariffs is often a wasteful method. The Tata Galvanised Steel sheets production is very small but the protection being given over the entire Indian Market is of a wasteful nature. Tariffs can easily be imposed and their effects may not be easily felt. Hence we should give attention to more direct modes of building up Indian Industries.

4. Dr. V. K. R. V. Rao, confined himself to discussing an important criticism made by Mr. B. P. Adarkar of his cousin Mr. B. N. Adarkar's book on "The Indian Tariff Policy". Mr. B. N. Adarkar had taken the view that a reduction in imports would lead to a reduction in exports that a policy of protection would reduce imports and that therefore the increased employment, income etc., resulting from industrialisation would be offset by a corresponding decrease in employment, income etc., due to the fall in exports. Mr. B. P. Adarkar thought that this argument was based on the deep-rooted fallacy that exports pay for imports. In Dr. Rao's opinion, Mr. Adarkar had mixed up the short and the long periods in criticising the classic proposition that exports pay for imports. While it may be that in the short period a fall in imports may not be followed by a corresponding fall in exports, it cannot be denied that if imports were reduced and kept reduced for sufficiently long period, exports must follow suit. In his opinion, the more pertinent criticism of Mr. B. N. Adarkar's thesis that protection would lead to a reduction in exports would be to question the proposition that protection would lead to a fall in *total* imports. It is not denied that protection would be followed by industriali-

zation; industrialisation in its earlier stages would lead to an increased demand for machinery, raw materials and semi-finished goods from abroad; while by the time protection took full effect and industrialisation was complete, national income would have risen and luxury imports would show an increase. Industrialisation may lead to a significant alteration in the composition of the country's imports but its volume will, in the long run, show an actual increase. Such in fact has been the experience of other highly industrialised countries such as Great Britain, Japan and the United States.

Dr. Rao wanted to add a word to the general discussion on the merits of discriminating protection. While he agreed that a more vigorous policy of protecting the industries of the country was necessary, he raised a note of warning against the extension of protection to industries mainly supplying export markets. In particular, he pleaded for some provision in the protective legislation by which the grant of protection to any industry would be made dependant on its readiness to rationalise its operations and the continuance of protection withheld in the absence of substantial improvement in its technical and managerial efficiency.

5. Principal. D. G. Karve, Mr. Chairman, I propose to confine my remarks to two or three features of the discussion that struck me as being in need of further elucidation. The position that raw materials occupy with regard to an industry requesting to be protected has received a good deal of attention. Mr. Bhat of Poona has suggested that the condition with regard to the available supply of cheap and abundant raw materials should be construed with leniency. Another speaker has suggested that the condition should be waived altogether. It appears to me, Sir, that the matter must be more fundamentally approached. The section in the Indian Fiscal Commission's report which enumerates the conditions that must be satisfied by an industry before protection is granted must be read as a whole. Abundant supplies of raw materials, cheap and efficient labour and a large domestic market are mentioned as the natural advantages which must be assessed before the grant of protection is decided upon. It had never been contemplated by the framers of the report that a succeeding government would construe this section as meaning that all these natural advantages must be possessed by an industry requesting protection. In fact I feel, Sir, that if this is the condition for the grant of protection, protection need never be granted, as it would be superfluous. Any industry which has all these advantages right from the start

will hardly ever need protection: it will prosper without any artificial help. A fair and correct interpretation of this section is now called for, and I do trust that with three ex-members of the Tariff Board among us on this occasion the matter will be further elucidated.

Then again, it seems to me that we have been discussing this question of tariffs too exclusively from the standpoint of its bearing on protection and free trade. Even apart from free trade and protection, tariffs must be judged and studied from the standpoint of their influence on the economic system of the nation as a whole. Tariffs are now a recognised instrument of planned economic action. Many of you must have noted the suggestion recently made by the London Economist that tariff policy should be readjusted to check the boom tendencies that are gathering strength in the United Kingdom. This suggestion is indicative of the desire to use tariffs as an integral part of a regulated economy. My own view is that we in India must have a collective view of our economic problem, and all departments of economic policy, tariffs, currency, freight, taxation etc. should be correlated to each other to form a consistent national economic policy.

And lastly, Sir, I must refer to the great, in fact, to the vital need of following up protective tariffs by regulatory state action. Tariff protection would lose all justification if it were to perpetuate or develop inefficiency of production or organisation. Already there are signs that unregulated protection is spelling high prices, low wages and low efficiency. This can be changed only if we insist upon the state shouldering the responsibility of securing the maximum possible efficiency in a protected industry. Without state regulation protection is worse than free trade. It has no educative effect and it is unjust and wasteful.

A discriminating yet fair application of the conditions laid down by the Commission, a coherent and comprehensive economic policy in which tariffs play their proper role and a policy of close supervision and regulation of protected industries are objects for which we must contend.

6. Mr. E. H. Solomon said that the spate of eloquence by some of the previous speakers reminded him of the course of river at its source—strong and turbulent, but narrow and lacking in fertility. Perhaps, in later days, as with the river in its middle and lower reaches, the opinions of some of his colleagues now so strongly in favour of high and indiscriminate protection, might be more fruitful for India. It was common knowledge that even if all imports ceased and these goods were (assuming

it to be possible) all produced within India, this would not solve the unemployment problem so long as population continued to increase irrespective of economic cause. He favoured a policy of discriminating protection which as in the case of the steel industry could be relied on to give India industries for which suitable conditions existed at the minimum of cost to the consumer. He did not think there was much ground in the allegation of Government trying to sabotage the work of the Tariff Board. For except in one or two cases where Government may have been in error in rejecting the Board's recommendations, the record showed a considerable measure of co-operation between the Board and Government. With Dr. Kaul he agreed that the revenue aspect of tariffs deserved more attention than it had received. The supplementary budget of 1931 had raised duties to a level which on many commodities showed diminishing returns. He thought that a tariff revision was necessary to lower duties on these commodities while at the same time preserving protective and differential duties where these had been found necessary.

7. Professor V. G. Kale, Poona—The Tariff Board has taken a large and liberal view of the industries which have come up for discussion. The members have always tried to do their best for the industries whose case has come up before them. The whole question may be divided into two and a re-examination of the whole position is right and necessary. The policy of protection is no longer new to this country. If greater powers were given to the newly constituted Board, it might do better work. The very fact that there is a Tariff Board makes people ask for protection. The Tariff Board must be continued as it would be harmful to industries to leave them helpless. When protection has been granted it would be better to watch the development of industries. It is then the duty of the government to see that favourable conditions are given for the protection to have effect. We must take into consideration the ideals of the people. If people take measures to preserve their existence we have to take into consideration those measures. If trade is being restricted, we have to find why and how it is being restricted. Free Trade or Protection is only a means to an end, and as to how that end can best be attained, that advice we Economists must give. I believe for many years the problem of unemployment will have to be tackled by industrial development. Protection may be one of the ways to tackle this problem.

8. Mr. H. R. Batheja:—I do not wish to enter into details of the arguments advanced for and against protection and free trade nor interfere in the family feud which seems to divide the

Adarkar family, but wish to observe that—in India the fiscal question is too apt to be discussed in an abstract fashion in the light of circumstances which may exist in other countries but do not exist in ours. The whole theory of free trade was evolved from the contemporary circumstance of England in the 18th and 19th centuries when it suited that country to find increasing outlets for its manufacturers and free access to raw materials. The theory of Protection was chiefly elaborated in U.S.A. with its vast and undeveloped resources and scanty population and in Germany—a late arrival in the industrial field—with consequent special emphasis on the infant industry and wealth producing capacity arguments. None of these theories suit exactly the special conditions of India with its old industrial economy, its spiritual and uneconomic out-look and extreme density of population. Since a densely populated country must either export its men or its wares, *prima facie* a free trade policy will suit it best if certain assumptions of free trade—notably full employment or free migration are satisfied. But as these are not realised in practice and the world has shut its doors in our face, we have to fall back on protection for promoting industrial development as a means of relieving unemployment. We must however not forget that fiscal policy is only one part of a comprehensive economic policy and has its limitations, and the field of employment provided by industries for the vast population of India with poor purchasing power is extremely narrow. Our largest industry the cotton industry—after years of natural and artificial protection employs only four lakhs of persons—a mere drop in the ocean of humanity comprising 375 millions. Protection and industrial development do not provide complete solutions and the former is therefore at the best a palliative which has to be replaced or supplemented by other means. Until wisdom dawns on the world and freedom of trade and migration are restored, it has to be maintained but at a moderate level. I should have liked to say more on the subject but as my time is up I shall confine the rest of my remarks to a very brief running commentary on Professor Vakil's paper in which he has made some remarks which ought not to go unchallenged. He and others here also wish to remove the restraints imposed by the legislature on a policy of indiscriminate protection. Prof. Vakil in effect wishes to remove all the present safeguards which in my opinion are generally desirable. I admit the condition regarding raw material should not be interpreted too rigidly and something ought to be left to the discretion of an expert impartial Tariff Board but it cannot be dispensed with. But for it all steel in India would be manu-

factured from imported billets and paper from imported pulp, thus lessening the total value of employment. A supply of skilled labour is necessary in any industry but a large home market in my opinion is absolutely essential. If we do not insist on this, may I know from Prof. Vakil where the protected industries will sell their products? Obviously export markets are not available otherwise no protection would have been necessary. An industry cannot export and claim protection at the same time. The last condition about the industry being able to stand on its own legs within a reasonable time has been devised not only in the interests of the consumers but in the interests of the industry itself inasmuch as it prevents it from being established on a level of inefficiency. Without these necessary safeguards, it will be difficult to decide precisely which industry deserves protection and which does not, since all industries cannot be protected.

NATIONAL INCOME

Professor Madhava—Three essential problems are involved in the measurement of national income:

1. Specification of the concept and content of the term National Income, particularly having regard to the fact that in Indian circumstances non-monetary income forms a large share. National welfare more than national exchangeable units of income should form the basis of measurement; and it is even worth our while to invent (like calories) a new unit of accounting to represent the nation's ability (1) to feed itself during the period of time for which income is computed and (2) to build up capital for the future for the economic advance of the country. In this problem of specification it is worth our while to bear in mind that we are more directly concerned with changes in the magnitude and distribution of national income.

2. *Estimation* as a statistical operation is an equally important aspect of the question. It must be admitted that our results will only be reliable to the extent to which we make our data and our methods. (1), exhaustive (2) consistent and (3) efficient.

It implies that we have at our command sufficient resources (1) of money to carry on intensive investigations (the general complaint being want of funds). (2) of time to compile and complete the calculations (the general demand being for "rough" results very quickly). (3) of ability by way of persons who are actually familiar with similar work elsewhere and who are specially qualified in such technical work (the general experience being unfortunately that economists wish to produce some results by simple arithmetical processes of addition and multiplication in spite of their dread for, and distrust in, technical statistical work.)

Speaking of agencies to be entrusted with this work, the assistance of the authorities of the Reserve Bank, besides that of the Departments of Revenue, Agriculture and Cooperation (and of universities) should be imported into economic investigations within early date.

3. *Distribution* in time and space, that is, the trend of changes within an economic cycle and the differences in productivity between differing economic regions should also be investigated.

For this purpose particularly the method of inquiry by sample is very handy. In both the papers that have been presented before, the method of *random* sample has been preferred. Better than this is what is called the representative sample the elements of which are picked up from different strata. This is a conception that is gradually finding favour in theoretical statistics and should be imported into economic investigations at an early date.

Prof. R. K. Mukerji, Lucknow.—The net addition to goods and services is difficult of estimation and so Dr. Thomas's methods is not practicable as there are differences in the values of these services. In Burma a high level of literacy has been achieved by the services of village schools which is not so in other provinces. Also such inaccuracies in estimation will detract from the usefulness of comparison with other countries because the variation of services goes with the customs of the country. I agree with Dr. Kaul on the concept of the national income being based on the estimates of consumption. Here again there are difficulties such as the difficulty of finding out comprehensive indices of consumption.

On the whole we should be less dogmatic in our conclusions and advocacy of methods.

NATIONAL INCOME

Ch. Sitarama Sastri:—The estimation of National Income is merely a mathematical addition of disparate units and as such it can never give an absolute idea. At the most it gives a relative conception for judging the economic progress of the country. As such, a census of production will give a better idea of economic progress than the addition of incongruous elements.

Any estimate arrived at has to be verified, as all agree, by an intensive survey of representative areas—rural and urban. Dr. Thomas's suggestion that the problem of local survey can be simplified by trying to estimate the income of the village as a whole, is not a workable proposition, because the balance sheet that he proposes to arrive at the total income is neither satisfactory for estimating the total income of the village, nor for making it a basis for the estimation of national income. Rent also is one of the items that enters into the stream of national dividend and its exclusion is not justifiable. Moreover a village is not a closed and exclusive unit and the allowances to be made for the incomings and outgoings of income are so many and varied that it entails a detailed individual investigation. The intensive survey is meant, as a matter of fact, to have some idea of the nature of distribution of income and Dr. Thomas's suggestion involves, more or less, the same trouble but without its advantage.

B. N. Kaul:—So far as the suggestion made by Dr. Thomas that the income of a village as a whole should be estimated, I do not think that this procedure will be of any great advantage. He has recommended it chiefly on grounds of convenience of estimation, as according to him the total crop production is brought to a few common threshing floors. First of all common threshing floors are not found in every part of India. But even if they existed, there would still be items of income other than crop production for which estimates by the family will have to be made. For the purpose of reducing gross production of crops as well as of other items of income to net production, estimates of cost of production will have to be made and they can be made only on the basis of the production unit or the family. So that, even on grounds of convenience the suggestion of Professor Thomas will neither be practicable nor advantageous. But the most serious objection to taking the village as a whole arises on theoretical grounds. If a random sample of villages as units is studied we shall get the frequency distribution of the incomes of

villages and not of the individuals or families. What we desire to get at is the frequency distribution of the population and not of the village units.

Dr. Seth believes that it is possible to arrive at sufficiently reliable results by the accepted methods of estimation. I think in coming to this conclusion he does not make proper allowance for the deplorable inaccuracy and insufficiency of economic statistics in India.

I agree with Professor Madhava's suggestion that a stratified random sample would be preferable to an ordinary random sample as it will give more accurate results. As I was concerned in my paper mainly with the question that the only feasible method in India for estimating national income is the random sample method, I have not discussed details and technical statistical aspects of the problem. A stratified sample is certainly to be preferred but it should be kept in mind that the finer the stratification the bigger will be the necessary sample, and the more expensive the enquiry.

Professor Madhava's dissatisfaction with our present unit of account—money—is quite natural. We all share it. But if he tried to convert his dissatisfaction into a positive suggestion as to what should be substituted in place of money, he will discover that he very soon passes into the realm of fantasy. And so we prefer to suffer the ills we have.

Prof. Thomas:—He said that the criticism raised against his paper was mostly on the details of the production census advocated by him. On this, a difference of opinion was possible. The economic conditions of India differed from those of most other countries and therefore the productin census method employed there must be adapted to suit our needs. In the parts of the country of which he (the lecturer) knew, the harvested produce of the principal crops can fairly well be estimated from the threshing floors, and later the estimates can be verified from house-to-house enquiries. A complete balance sheet of each household was difficult to make and was not essential, for purposes of national income estimation.

TRANSPORT

Prof. D. R. Gadgil.—A definite distribution of traffic between road and rail transport by the State is not advisable at the present stage. Motor transport is yet in the infant stage and the point of equilibrium between road and rail may not be reached soon.

As between rail and motor it is difficult to determine a definite stage at which one or the other becomes more efficient and therefore no rigid demarcation can at present be arrived at. Motor activity can be suitably carried on even a very small scale. It is not suitable for public utility organization and therefore regulation, as for example, by licenses, is a more suitable method than combining motor and rail activity under one organization.

The whole problem should not be looked at from the point of revenue. The development of road transport has brought about a partial obsolescence of the railway and the problem is how to bring about the proper adjustment between the two competing forms of transport without too great a strain on the railway position. Any sectional approach or attempt at rigid stereotyping of present conditions would be a mistake.

Prof. H. Rahman—The basic difficulty regarding the position of Transport in India is that this industry of ours is at present partly regulated and partly unregulated. So far as the railways are concerned, this part of national transport is certainly under regulation but even there the regulation is not yet quite scientific and uniform. The road transport, on the other hand, is under no regulation worth the name. It is this chaotic condition of our transport industry that is responsible for most of the problems that are facing us in this sphere, including the growing antagonism between the financial interests of the Central Government on the one hand and the Provincial Governments on the other. My only point is that this situation cannot be rectified by a mere tinkering here and there, but it requires a comprehensive re-adjustment. The Hyderabad Government, having become the owners of their railway system, have tried a remedy which I have detailed in my paper, and my suggestion is that the success of that experiment is real and important enough to regard it as a practical way out of the present difficulties.

DISCUSSION ON CURRENT TOPIC

Recent Exchange Development

Dr. Rao began with a tribute to the able manner in which Dr. Thomas had presented the case against devaluation of the Rupee but he found himself unable to subscribe to his (Dr. Thomas) conclusion. Statistics of price indices did not prove anything. The important thing was whether costs had adjusted themselves to the prices dictated by the exchange; and as far as agricultural costs were concerned, there could be no doubt as to the answer. Agricultural debts, rents and taxes had remained at the predepression level, while the agriculturist's income was reduced by nearly one-half during the course of 5 years. The agriculturist was unable to meet these fixed charges from his income and was forced to sell his property in consequence. Land changed hands and also gold. This was the distress gold which went to maintain the exchange value of the rupee. The only way to correct the situation was to raise the rupee prices obtained by the Indian agriculturist and devaluation was the first step towards the achievement of this object.

It was contended that though the rupee was in fact devalued in 1931 when it was linked to sterling, such devaluation had had no effect either on the volume of exports or the level of prices; and that therefore it would be futile to expect much out of any further devaluation. Dr. Rao pointed out that such devaluation as did result from linking the rupee to sterling in 1931 was only with respect to the non-sterling area; and by 1936, even this was upset by the successive depreciation of the yen, the dollar, the franc and the guilder. Moreover such abnormal factors had entered into the world's foreign trade during this period as made it statistically impossible to indicate the effects of devaluation. Dr. Rao concluded with the statement that to him devaluation was not a sovereign specific but only part of a general plan for economic recovery.

Professor P. J. Thomas :—During the last five years, India's export trade declined not only in value but in quantum. The price of most of our export staples slumped by about 40 per cent by 1932, and a vigorous imposition of import restrictions abroad reduced the demand for our export staples. The prices of imports did not fall to the same extent as those of exports; in fact the disparity was as large as 20 points in 1932. Therefore

the merchandise balance of trade in favour of India largely diminished; it was as low as Rs. 3 crores in 1932-33, but amounted to 34 crores in the following year, and this level has since been maintained. India has normally to make large payments abroad, both on Government and private account, and an annual balance of trade of about 60 crores has lately been necessary for the purpose. In such a situation, the export of gold was the compensating factor. When the price of everything else slumped by 40 per cent, gold rose in value by more than 40 per cent, and as there was great demand for it abroad merchants sold large quantities of it at profitable prices. About 35 million ounces of yellow metal has flowed out since 1931.

During the last five years, India has exported gold as a commodity, the only commodity which fetched high prices. In this respect, India's gold exports have been rather like those of a mining country. For ages, India has been absorbing gold. During the ten years 1920—29 the Indian absorption amounted to 25 per cent of the world production, and during the same period the rest of the world absorbed only 21 per cent for non-monetary purposes. A country which imports gold as a commodity may also export it when it is advantageous to do so. Such an occasion lately arose when the price of nearly everything fell and gold alone appreciated. Just as a rise in the price of gold extends the margin of profitable mining, so also a rise in price led to the opening of hoards and attracted new sellers to the market. No doubt the analogy between the gold exports of India and those of mining countries cannot be pushed far. India's gold is not nature's gift; it is mostly purchased from abroad, and the supply is limited. Yet it is not so limited as often thought. India's gold holdings are certainly not less than those of the U.S.A., but with one great difference, namely, that while the gold stock of the U.S.A. is a mighty armament, being in the central reserves, that of India is barren metal lying in idle hoards or displayed on the bodies of men and women. By exporting such gold, we have converted barren metal into mobile purchasing power, and made it possible to carry out a striking industrial expansion during a period of dire depression.

Some persons doubt the propriety of having made gold exports perform such a task. But they have to remember that it was a necessary result of India's hoarding habit. Had India utilized her usual favourable trade balances wisely, had our people invested their earnings in more productive assets, the abnormal situation that arose by the world crisis could have been met in other ways. But India has preferred to invest her savings

in barren metal, and naturally that metal had to be taken out and sold; and fortunately, it was the one commodity that fetched high prices. A country which habitually imports gold as a commodity cannot regard exports of such gold as other countries regard the gold drain from their central reserves. A country cannot go on hoarding gold always; it will have to release part of it at times, and this is what happened lately.

Many people connect gold exports with rural distress. That there was rural distress when prices suddenly fell is beyond doubt. It is also true that many people who had no money to meet their dues had to sell their gold. Thus distress can explain the copious flow of gold from rural parts to cities, but it cannot explain its exportation. Nor could distress have been prevented by forbidding the export of gold; on the other hand, such a step might have increased it. Those who were in distress would in any case have sold their gold to those who had the means to buy it; only they would have got less value for it. People in distress must part with something for paying their dues. Which should they have preferred to sell—their cattle and fields, which gave income, or barren metal, which gave no income or only a psychic income. Is it not true that in order to save their more productive assets, needy persons parted with a rather unproductive asset at an unexpectedly high price? But, it is too well known that all the gold exported did not come from 'distress' sources.

It is true that exporting gold is not the cause of rural distress; it is also true that gold exports have helped the country to tide over a severe depression. But the outflow of gold cannot be allowed to continue long. Normally the country must meet its dues abroad by exporting ordinary commodities. We must therefore devise means for increasing our merchandise balances and for increasing the income of the masses.

A device often suggested for securing both these ends is a further devaluation of the rupee. Such a remedy might have been advisable had the rupee been overvalued, but on no ground can it be considered such. In terms of sterling, the rupee is today undervalued, on the strict purchasing power parity basis, and the rupee is now worth at least 20 pence. It is claimed by some persons that devaluation will raise prices and increase exports. In the present circumstances of world trade, to devalue for export advantage is chimerical, and a country which exports hardly 7 per cent of its total production cannot expect to raise its price-level by exchange manipulation. Devaluation will give a temporary benefit to middlemen, but on the whole the agriculturists may be worse off than before. The advantages of exchange

depreciation are doubtful and transitional but the disadvantages are certain and more lasting.

Even without resorting to such manipulations, prices have risen and merchandise balances are improving. During the past seven months of the current year, the merchandise balance amounts to 34 crores, which is 4 crores more than the balance for the whole of last year. Exports are steadily growing and imports are declining or are stationary. The disparity between the prices of exported and imported articles has also narrowed down to 8 points. In March 1936, export prices stood at 38 per cent and import prices 30 per cent below the 1929 level. In many other countries the disparity has altogether disappeared, but we must take into account the fact that just before the depression began, export prices were ruling high. Gold exports have also diminished. In the past two years after India went off gold, the exports were above 8 million ounces; but by last year, they have fallen to 4 million ounces and in the current year the decline is continuing.

In regard to external trade, what we may now do is to safeguard our markets abroad (1) by making trade agreements with the principal customers, (2) by appointing trade agents in all important countries and (3) by improving the quality and grading of our export staples, following the seasonable advice of the Indian Trade Commissioners in London and Hamburg.

For maintaining internal purchasing power in a period of cyclical unemployment the most effective step in this country is a programme of loan expenditure on remunerative public works scattered all over the country. But such a step ought to have been taken when the depression reached the bottom. Even now there is room for more public work expenditure, but it is well to recognize that India's problem today is not so much cyclical unemployment as an under-employment which is a long-standing feature of Indian economic life. To cure such a deep-rooted malady, we have to carry out a comprehensive programme of rural uplift, including in that term the manifold improvements connected with better farming, better business and better living. The income of the agriculturist must be raised by increasing and improving production, by the adoption of better marketing methods and by reducing the cost of credit. Such a programme is now being initiated in many provinces, and provincial autonomy is expected to accelerate it. When the income of the masses increases, the standard of living must also rise and India may then be on the way to a level of economic prosperity higher than any it has seen before.

CURRENT TOPIC

Dr. Lucas:—Since the war most countries of the world have devalued their currencies but India enjoys the distinction that her currency has a higher shillings pence ratio than before. And the bulk of India's trade runs through the channel of sterling. In the depression prices of all commodities fell but the price of gold rose. So disastrous was the drop in the price of wheat and cotton, the chief sale crops of the Punjab—that the only way in which the farmers could meet their obligations was by the widespread and continuing sale of gold. A brochure of the Board of Economic Inquiry, Punjab entitled “Sales of Gold in 120 Punjab villages from October 1931 to December 1933” gives details of this phenomenon and the evidence is categorical that the bulk of the sales were due to sheer economic necessity, and not from any sudden desire to make a profit because of the high price of gold. Devaluation of the rupee in terms of sterling would undisputedly have lessened the shock and kept prices at a higher level. Prices are rising now because of war preparations in Europe, but should there be any appeasement of the war scare prices of raw materials such as wheat and cotton would in all probability drop again and the effects would be disastrous for the Indian peasantry. Devaluation to the 1s. 4d. level coupled with a public works programme and more attention to subsidiary industries built into the rural economy would be a line which properly carried out might bring permanently better conditions to the rural masses.

CH. Sitaram Sastry:—

The problem of Devaluation is one of fact, and one important fact is the disparity between Rupee prices and gold prices as published in the World Economic Survey of the League of Nations are lowest when compared with any other country either agricultural or industrial, while the same converted into gold prices stand at a higher level than the prices of most of the other countries. This discrepancy continued till the end of 1934 and it seems to have correct itself later on. But as no country is now on the pure gold standard, gold prices are not now so significant. Anyhow, the disparity that existed upto the end of 1934 indicates an overvaluation of the rupee. In the opinion of Mr. Fraser, the suspension of the gold standard

by the United Kingdom in 1931 was mainly due to the overvaluation of the sterling in 1926 and the consequent maladjustment between various economic factors. Hence it cannot be expected that currency troubles will get adjusted in a short period; on the other hand there is a tendency for a cumulative effect. Anyhow, the problem requires a more detailed statistical study of various factors.

Mr. E. H. Solomon—said that the discussion hitherto savoured of locking the stable door after the horse had fled. The question was not whether in 1926 or 1931 devaluation was desirable, but whether it was so now. No attention seemed to have been paid to the debit side of devaluation such as the extra $5\frac{1}{4}$ crores that would be required to meet home charges and the increased cost of imports due to the terms of trade becoming more unfavourable to India. As India's exports were mainly of raw materials and foodstuffs in the marketing of which there was a long chain of middlemen between the exporter and the cultivator, the latter was likely to receive a relatively small part of the rise in export prices. Hence the stimulus to production from devaluation was likely to be much smaller and take much longer time than its advocates supposed. Particularly as foreign trade in India constituted a much smaller proportion of total exchanges, external and internal, than in Britain or Australia. Nor would India as a debtor country have in devaluation the attraction which this course had for Britain and the U.S.A., that such a measure would increase the capacity of their debtors to meet interest and amortisation charges on their debts.

RECENT EXCHANGE DEVELOPMENTS

Prof. P. J. Thomas—He said that no evidence had so far been adduced to prove that the rupee was overvalued. Mr. Adarkar had pointed out that the comparatively low recovery of prices in India was proof of the overvaluation of the rupee, but this on the other hand proved that other currencies were getting overvalued *vis a vis* the rupee. With sterling prices at 21 points above September 1931 level and the rupee prices at hardly 1 point above, the rupee was apparently the undervalued currency. Dr. Rao would not consider the price-level, but points out the disparity between prices and costs. Such a disparity is not easy to prove and has not been proved. The *Economist* evaluated currencies by using chiefly the price-level, and a more refined norm might not be necessary in the case of India. Our price-indexes are not perfect, but they were adequate for the purposes we had in view. The clear evidences of overvaluation were deflation, adverse trade balances, loss of gold from reserves, etc. None of these were lately in evidence in this country. Trade balances had lately improved creditably, prices had risen; and the discussion of devaluation was becoming merely of academical interest. India needed other measures now—trade agreements, a campaign for improving the quality of our export staples, and a concerted attempt at raising the purchasing power of our rural masses. On this the country must concentrate and currency manipulations would be futile at this juncture.

INDIAN ECONOMIC ASSOCIATION

Twentieth Conference, Agra University, January 1937.

The Annual General Meeting of the Indian Economic Association was held in the Agra University Building on the 2nd January, 1937 at 11-30 A.M.

PRESENT :

Dr. John Matthai, D.Sc., Director General of
Commercial Intelligence and Statistics, *President*

Prof. V. G. Kale.	Prof. N. K. Bhojwani.
Manohar Lal, Esq., Bar-at-law.	Prof. Kashi Prasad.
Prof. C. N. Vakil.	Prof. R. K. Mukerjee.
Prof. P. J. Thomas.	Prof. K. P. Bhatnagar.
Mr. J. R. Shroff.	Prof. J. P. Niyogi.
Prof. K. B. Madhava.	Dr. M. S. Natrajan.
Mr. B. B. Majumdar.	Prof. H. R. Batheja.
Prepl. Rangaswami Aiyangar.	Dr. Budh Sen.
Prof. Narayanaswamy Naidu.	Mr. E. H. Solomon.
Dr. E. D. Lucas.	Prof. R. S. Dwivedi.
Dr. B. N. Kaul.	Mr. Shitla Prasad Saksena.
Prof. H. Rahman.	Mr. B. R. Misra.
Prof. D. C. Karve.	Dr. H. L. Pasricha.
Principal D. R. Gadgil.	Dr. D. L. Dubey.
Prof. V. K. R. V. Rao.	Prof. H. Ghosh.
Prof. K. C. Ramakrishnan.	Prof. B. M. Khanna.
Prof. B. G. Bhatnagar.	Mr. Kesari Singh.
Prof. S. K. Bose.	Prof. B. P. Adarkar.
Prof. L. N. Ghosh.	Mr. K. H. Kamdar.
Mr. Riazuddin Ahmad.	Dr. H. Sinha.
Mr. A. R. Bhat.	Mr. S. A. Samad.
Prof. M. K. Muniswami.	Mr. U. S. Bhatnagar.
Prof. H. L. Puxley.	Mr. Ch. Sitaram Sastry.
Mr. Mohammad Shaghil.	Dr. L. C. Jain.
Dr. H. C. Seth.	

1. The minutes of the last Annual General Meeting held at Dacca were confirmed.

2. The report of the Hony. Secretary and Treasurer and the audited statement of accounts for the year ending 31st May, 1936 were considered and approved.

3. While appreciating the invitation of Rangoon University the invitation of the Osmania University of Hyderabad for holding the 21st Economic Conference under their auspices was gratefully accepted. It was agreed that the Conference should be held between the 24th December, 1937 and the 3rd January, 1938, the exact dates to be settled by the Osmania University and to be announced later.

4. The following subjects were selected for discussion at the next Conference:

(a) Theory of Trade Cycles.

(b) Indigenous Banking—History and Problems.

(c) Unemployment in India.

(d) A current topic to be decided later by the Executive Committee.

5. The following office-bearers were unanimously elected for 1937:

President:—Prof. P. J. Thomas, Madras University.

Secretary:—Dr. B. V. Narayanaswamy Naidu, Annamali University.

Hon. Local Secretary:—Prof. H. Rahman, Osmania University, Hyderabad.

Members of the Executive Committee:—

1. Dr. J. Matthai, D.Sc., New Delhi.
2. Manohar Lal, Esq., M.A., Bar-at-Law, M.L.C., Lahore.
3. Prof. V. G. Kale, Poona.
4. Prof. R. K. Mukerjee, Lucknow University.
5. Prof. C. N. Vakil, Bombay University.
6. Prof. L. C. Jain, Punjab University.
7. Prof. J. P. Niyogi, Calcutta University.
8. Dr. Gyan Chand, Patna University.
9. Dr. B. N. Kaul, Aligarh University.
10. Dr. H. L. Dey, Dacca University.
11. Prof. G. D. Karwal, Allahabad University.
12. Prof. V. K. R. V. Rao, Andhra University.

6. A vote of thanks was passed for Dr. L. C. Jain's services as Secretary of the Association, (1934-36).

7. (a) It was *resolved* that the Hony. Auditor Lt. P. S. Sodhbans be thanked for his kindness in auditing the accounts for the year 1935-36.

(b) Auditor for the year 1936-37 be appointed.

8. The following gentlemen were elected to represent the Association on the Board of the Journal :

1. Prof. V. G. Kale.
2. Prof. C. N. Vakil.
3. Prof. B. V. Narayanaswamy Naidu.
4. Prof. J. P. Niyogi.

9. The Secretary informed the meeting that action was being taken on Professor Vakil's suggestions regarding: (1) the extension of the activities of the Association by the formation of local study centres and (2) collection of information regarding research work in Economics completed or in progress in various universities. It was decided that letters should be addressed regarding the latter to the Registrars of Universities and also to the heads of Economic departments.

10. The meeting terminated with a vote of thanks to the Agra University and the President.

(Sd). L. C. JAIN.

Hony. Secretary.

(Sd). J. MATHAI.

President.

INDIAN ECONOMIC ASSOCIATION

Report for the year ending 31st May, 1936.

The number of members on the 31st May, 1936 was 176 as compared with 192 in 1935 and 145 in 1934. Efforts are being made to raise the membership, and it is hoped that the figure for 1937 would exceed that of 1935.

The financial position of the Association continues to show steady improvement. From Rs. 2,743-8-7 on the 1st June, 1935, the cash balance increased to Rs. 2,942-13-3 on the 31st May, 1936. Besides, in accordance with the agreement regarding the Journal between the Association and the Allahabad University, there is a Joint reserve fund of Rs. 1,809-7-10. The cash balance includes Rs. 78-1-4 on account of the share of the Association in the profits of the Journal for the year, but does not include interest on the fixed and saving bank deposits which fell due and was realised at the end of June, 1936 and which, therefore, will be accounted for next year. The payment by the Association on account of the Conference Number of the Journal for pages exceeding 200 was Rs. 338-13-6 as compared with Rs. 637-6-3 last year, but for the Conference Number the Dacca Economic Conference made a generous donation of Rs. 100 received and credited in 1936-37, while a sum of Rs. 40-4-0 was received from authors whose papers exceeded 10 pages. The audited statement of accounts is attached herewith.

I am greatly indebted to the President and to Messrs. Manohar Lal and C. N. Vakil for their valuable guidance in all matters.

Lahore,

December 21, 1936.

L. C. Jain.

Honorary Secretary

INDIAN ECONOMIC ASSOCIATION

Receipts and Payments Account for the year ending 31st May, 1936.

RECEIPTS

To Opening Balances:—

	Rs.	a.	p.	Rs.	a.	p.
(a) Fixed Deposit ..	1,076	3	0			
(b) Saving Bank ..	2,015	10	0			
(c) Current Account ..	529	0	11			
(d) Cash with Secretary ..	14	3	3			

Less Expenses of Journal ..	3,635	1	2	2,743	8	7
	891	8	7			

To Interest on Fixed Deposit (1935) ..	26	14	0			
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" Interest on Current Account ..	7	5	0			
" Interest on Saving Account ..	49	9	4	83	12	4

" Subscription from Members:—						
175 Members @ Rs. 12 each ..	2,100	0	0			
Less received in advance in last year ..	36	0	0	2,064	0	0

" Advance Subscription:—						
One Member @ Rs. 12 each ..				12	0	0
" Share of profits from the Journal ..				78	1	4
" Author's contribution to Conference Number of Journal ..				40	4	0
" Miscellaneous Receipts (Journal advertisement and sale of report) ..				12	8	0

Total Rs. ..	5,034	2	3			
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Auditor's Report.

Audited and found correct. Actual cash Balances in hand are Rs. 3,551-1-5 out of which Rs. 608-4-2 are payable to the Department of Economics, Allahabad University, towards the cost of Journal. Interest accrued on Fixed Deposit and Saving Fund has not been accounted for.

(Sd) P. S. SODHBANS,

LAHORE:

F.L.A.A. (Lond.), R. A.,

Dated 21st December, 1936.

Registered Accountant & Hony. Auditor.

PAYMENTS

	Rs.	a.	p.	Rs.	a.	p.
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By Department of Economics, University of Allahabad, for 125 members @ Rs. 9 each and 51 members @ Rs. 8 each including one Life Member, being contribution ..				1,533	0	0
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Cost of Journal (Conference Number) ..				338	13	6
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" Expenditure on 48 refused Journals ..				15	0	0
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" Clerical Assistance ..				120	0	0
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" Printing and Stationery ..				24	12	0
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" Miscellaneous Expenses ..				11	0	6
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" Postage ..				48	11	0
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" Cash at Bank and in hand:—						
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(a) Fixed deposit with Bombay and Provincial Coop. Bank Ltd., Bombay ..	1,103	0	0			
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(b) Saving Bank Account with Punjab National Bank Ltd., Lahore ..	2,065	3	4			
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(c) Current Account with Central Bank of India, Ltd., Lahore ..	358	14	1			
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(d) Cash with Secretary ..	24	0	0	3,551	1	5
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Less due to Department of Economics, Allahabad University ..	608	4	2	2,942	13	3
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(Sd) L. C. JAIN,

Hony. Secretary.

Total Rs. ..	5,034	2	3			
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